

Jorge L. Morales López
Properties Administration, Director
Puerto Rico Industrial Development Company
355 Ave. Roosevelt
Hato Rey, PR 00918

Arcadis Caribe, P.S.C.
48 City View Plaza 1
Suite 401
Rd. 165
Km 1.2 Guaynabo
Puerto Rico 00968
Tel 787 777 4000
Fax 787 777 8086

Subject:
Letter Report
Removal of Underground Diesel Piping System at GE San Germán Facility
Case 16-196

ENVIRONMENTAL

Dear mister Morales:

Date:
May 11, 2017

Arcadis Caribe, PSC (Arcadis) was retained by GE Industrial of PR, LLC (GE) to conduct removal of an underground diesel piping system (supply and return) at GE San Germán Facility located at Lots T-0497-0-58-00 and T-053-0-66, Street B, El Retiro Industrial Park, San Germán, Puerto Rico.

Contact:
Abner Hernández

Phone:
787.777.4000

BACKGROUND

Email:
abner.hernandez@arcadis.com

GE leased the subject site from the Puerto Rico Industrial Development Company (PRIDCO) and began operations in approximately 1969. Building 1 (T-0753) was used for the manufacturing of industrial power breakers (molding area), and Building 2 (T-0497) was used for assembly of power breaker components. GE ceased manufacturing operations in Building 1 (T-0753) in December 2016 and Building 2 (T-0497) in February 2017. A facility lease exit was completed in May 2017, when the Puerto Rico Industrial Development Company (PRIDCO) took over the custody of the facility.

Our ref:
E118

The ¾ inch double wall underground diesel piping system was used to supply diesel fuel from an aboveground storage tank (AST) next to Building 1 (T-753) to an emergency electricity generator day tank at the northeast corner of Building 2 (T-0497), crossing the roadway (street B) between the two buildings. On September 2016, the diesel supply system suffered a leak and failed an integrity test.

This letter report summarizes the activities conducted by Arcadis from January 31, 2017 through April 12, 2017 related to the removal of the 375 lineal feet

underground diesel piping system as authorized by PRIDCO in their Work Plan Approval Letter dated January 4, 2017.

PRE-REMOVAL ACTIVITIES

Prior any intrusive (excavation) work, the area of interest was evaluated using geophysical methods to aid in the detection of underground utilities and structures and minimize harm to underground features and structures, excavation equipment, and workers during intrusive/excavation activities. The underground utility survey was conducted on December 23, 2016 and included the use of a ground-penetrating radar (GPR) and radiofrequency pipe locator (PL). **Appendix A** provides the Subsurface Utility Survey Report.

A Notification Letter to the Municipality of San German describing the scope of work was submitted to the Mayor's office on December 16, 2016. Approval (permit) from the Municipal Public Works Department for conducting a trench excavation at Street B for the removal of the underground pipeline was issued on January 26, 2017. **Attachment A** includes copy of the permit issued by the San German Municipality. In addition, a Notification of Excavation was also submitted to the Puerto Rico Department of Transportation and Public Works (DTOP, for its acronym is Spanish) Excavation Center. An Excavation Notification Certificate was issued January 31, 2017. **Attachment B** includes copy of the Certificate issued by DTOP Excavation Center.

Flushing of pipelines with a combination solution of water with all-purpose cleaner (Simple Green®) was performed to remove any fuel remains (left overs) within the pipelines and avoid/eliminate any possible spillage of fuel when cutting the pipelines. **Appendix B** includes copy of the non-hazardous waste (flushing rinsates) disposal manifest along with laboratory tests results performed to such liquid waste.

REMOVAL ACTIVITIES

After conducting the pipeline flushing, soil and concrete layered on top of the pipelines was removed. The concrete layer on top of the pipelines was removed using a pneumatic chipping hammer powered by an air compressor. The removed top soil and concrete were temporarily stage next to the trench excavation for later use as backfill. Once the pipelines were exposed, they were cut in segments of approximately 10 feet in length sections and placed into the scrap metal roll-off container provided by Borinquen Metals Scrap for later recycling.

After pipelines were removed, the soil immediate beneath was screened with PetroFLAG® system as a field screening method for the determination of total petroleum hydrocarbons in soil. **Figure 1** shows the areas screened with PetroFLAG®. **Appendix C** provides the PetroFLAG® soil screening test results. Whereas the concentration of total petroleum hydrocarbons from soil screening process at bottom of trench were >100 ppm six (6") additional inches of soil were removed. Soils from soil screening process detected with TPH's >100 ppm were containerized at site in a 20-cubic yard roll-off container prior to ultimate disposal at a local landfill. When results of soil screening samples at bottom of excavation showed concentration of hydrocarbons <100 ppm, a clearance soil sample for laboratory analysis was collected using a hand auger (same location at bottom of excavation/trench).

Eight (8) clearance soil samples were collected from the bottom of the pipeline trench after soil screening and removal at the locations shown on **Figure 2**. **Table 1** provides a summary of the clearance soil samples sent for laboratory analysis including analytical test results. **Attachment C** includes the certified

laboratory soil sample results. Since soil sample GESGDPL-1 showed TPH concentration above the 100-ppm established level, additional soil was removed from bottom of trench, and an additional confirmation sample was collected from the area with sample GESGDPL-1A, which had a TPH concentration of 52.1 ppm.

Since clearance soil samples results are below the established clearance level of 100 ppm for TPH, the trench/excavation was backfilled with the same top soil and concrete debris removed from top of pipelines and with clean backfill where needed to bring the grade back up to ground level surface within green (grass) areas. Trench/excavation sections within the parking lot west of Building 1 (T-0753), the front of loading/unloading area of Building 1 (T-0753), and street B crossing were backfilled with concrete debris removed from top of pipelines and with clean backfill leaving the top 4 inches free for later pouring of new concrete slab.

After backfilling the trench/excavation, a jumping jack tamping rammer was used for soil compaction.

A day after soil compaction, four inches of 4,000 psi concrete was pour up to surface level at trench/excavation sections within the parking lot west of Building 1 (T-0753), the front of loading/unloading area of Building 1 (T-0753) and street B crossing.

Table 1. Summary of Clearance Soil Samples

Sample ID	Laboratory Analysis Report No.	Date Collected	Time	Description	Depth	Matrix	Sample Type	Analytical Method (TPH-DRO)	Results (mg/kg)	TPH-DRO Threshold Level (mg/kg)
GESGDPL-1	2051337	3/7/2017	706	East of former Emergency Generator Building 2**	12"	Soil	Grab	EPA 8015B	358	100
GESGDPL-2		3/7/2017	740	North of former emergency generator green area near gate Building 2	12"	Soil	Grab	EPA 8015B	44.3	100
GESGDPL-3		3/7/2017	754	South east corner green area Building 1*	12"	Soil	Grab	EPA 8015B	ND	100
GESGDPL-4		3/7/2017	807	East side of stairs entrance to Building 1	12"	Soil	Grab	EPA 8015B	9.8	100
GESGDPL-5		3/7/2017	840	Parking Lot North of Security Guard Office Building 1	12"	Soil	Grab	EPA 8015B	ND	100
GESGDPL-6		3/7/2017	900	Parking Lot south of former diesel AST Building 1	12"	Soil	Grab	EPA 8015B	ND	100

Sample ID	Laboratory Analysis Report No.	Date Collected	Time	Description	Depth	Matrix	Sample Type	Analytical Method (TPH-DRO)	Results (mg/kg)	TPH-DRO Threshold Level (mg/kg)
GESGDPL-7	2051462	3/8/2017	1025	Street B south side	3'10"	Soil	Grab	EPA 8015B	30.6	100
GESGDPL-8		3/23/2017	1111	South of loading/unloading dock Building 1	12"	Soil	Grab	EPA 8015B	40.4	100
GESGDPL-1A	2052248	3/23/2017	1037	East of former Emergency Generator Building 2 (same location as sample GESGDPL-1)	1"	Soil	Grab	EPA 8015B	52.1	100

* Building 1 = Building T-0753
** Building 2 = Building T-0497

The removal of the underground diesel piping system generated investigative derived waste (IDW) such as soil cuttings and/or impacted soil (excavated soil).

All IDW waste was containerized in a 20-cubic yard roll-off fitted with liners prior to disposal. For purpose of disposal, one composite sample was collected from the IDW (excavated soil) for characterization by Toxicity Characteristic Leaching Procedure (Full TCLP - EPA Methods 8081, 8151A, 6010, 7470, 8270, 8260), Reactivity (EPA Method 734S and 733C), Corrosivity (EPA Method 9040) and Ignitability (EPA Method 1010). **Appendix D** includes copy of the non-hazardous waste (IDW/impacted soil) disposal manifest along with laboratory tests results performed.

The activities were conducted in accordance with the approved Work Plan.

Photolog of removal activities is included in **Appendix E** of this letter report.

Should you have any questions or need additional information, please don't hesitate to contact me at (787) 777-4000.

Jorge L. Morales López
May 11, 2017

Sincerely,

Arcadis Caribe, P.S.C.



Abner Hernández
Project Manager

Copies:

Dawn Varacchi, GE
Fidel Kandell, GE

Enclosures:

Figures

- 1 Soil Screening Map
- 2 Soil Quality Map

Appendixes

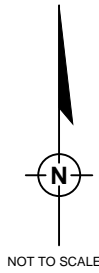
- A SUS Report GE San Germán B
Manifest 57330-17N10
- C PetroFLAG Soil Screening Results
- D Manifest 57400-17N11
- E Photo Log

Attachments

- A Copy of Street Cutting Permit
- B Certification of Procedure for Excavation and/or Demolition Notification
- C Soil Samples Certified Laboratory Results

FIGURE 1

Soil Screening Map



- LEGEND:**
- PETROFLAG SOIL SCREENING AREA
 - DIESEL LINE TRENCH LOCATION
 - PFSS **PETROFLAG SOIL SCREENING**

GE INDUSTRIAL OF PUERTO RICO, LLC
SAN GERMAN, PUERTO RICO
PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

SOIL SCREENING MAP


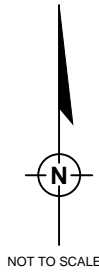


FIGURE
1
GE_SG001252

FIGURE 2

Soil Quality Map



- LEGEND:
- Point.# SAMPLE LOCATION
SAMPLE ID
- DIESEL LINE TRENCH LOCATION
- BPL **B**ELOW **P**IPE **L**INE
- ND **N**OT **D**ETECTED
- DRO **D**IESEL **R**ANGE **O**RGANIC
- GESGDPL **G**ENERAL **E**LECTRIC **S**AN **G**ERMAN
DIESEL **P**IPE **L**INE

GE INDUSTRIAL OF PUERTO RICO, LLC
SAN GERMAN, PUERTO RICO

SOIL QUALITY MAP
Removal Underground Diesel Pipelines

ARCADIS
GE_SG001254

FIGURE
2

APPENDIX A

SUS Report GE San Germán



Subsurface Utility Survey Daily Job Report

Project Number _____

Date

12/23/16

Address

Calle B, Parque Industrial, San Germán

Client Field rep. and contact info

Carlos Cordero, Tony Pérez - Arcadis

Field Equipment

☒ Ground Penetrating Radar (GPR) _____

☒ SR-60 Pipe and Cable Line Locator (PL) _____

Include serial number _____

Field Operator

☐ H. Rodríguez

☐ W. Rodríguez

☐ H. Babilonia

☒ J. Negrón

☐ Other _____

Field Information

Possible lines designated

☒ Electric (red)

☐ Communications (orange)

☒ Gas, Oil, Pressurized Air (yellow)

☐ Reclaimed water (purple)

☐ Water (blue)

☒ Temporary, unknown (pink)

☒ Sewer, Storm water (green)

☐ Proposed excavation, boring (white)

Describe weather

c/ez

Did it rain ☒ 0 - 2 ☐ 2 - 4 ☐ 4 - 8 ☐ 8 - 12 ☐ 12 - 24 hours before arriving at the facility?

Is the soil at the surveyed area ☒ moist ☐ covered with a slab ☒ covered with asphalt ☒ fill

Were plans describing locations of utilities provided? No

Did you interview anyone, at the facility, about underground utilities? No

At the facility, did you observe: ☒ walls ☒ buildings ☒ substations ☒ utility poles ☐ creeks

Are utilities live? yes Did you induce a signal? yes

Were proposed excavation locations identified at the facility? yes

Were designated utilities within five (5) feet of proposed excavation locations? No

Calibration notes _____

Work area description

se identificó línea de tierra desde tanque sobre tierra hasta los tanks del generador. Línea eléctrica causó interferencia pero no se pudo detectar.

Client Signature and Date

[Signature] 12/23/16

APPENDIX B

Manifest 57330-17N10



57330

I. GENERATOR (Generator completes Ia-r)

If waste is asbestos waste, complete Sections I, II, III and IV
If waste is **NOT** asbestos waste, complete Sections I, II and III

Generator's US EPA ID Number		b. Manifest Document Number 17 N10		c. Page 1 of 1	
d. Generator's Name and Location: EIE Industrial Solutions Inc. Park 85 Industrial Solutions Hickory Ind. Park Sangerman Rd		e. Generator's Mailing Address:			
f. Phone: (781) 270-7007		g. Phone:			
If owner of the generating facility differs from the generator, provide:		i. Owner's Phone No.:			
h. Owner's Name:					
j. Waste Profile #	k. Exp. Date	l. Waste Shipping Name and Description	m. Containers No.	Type	n. Total Quantity
4217172542	2/13/2018	Contact 1 Rinsate w/water	01	450	005

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if this waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR 268 and is no longer a hazardous waste as defined by 40 CFR 261.

p. Generator Authorized Agent Name (Print) Teresa C. Roche	q. Signature <i>Teresa C. Roche</i>	r. Date 28/11/2017
---	--	-----------------------

II. TRANSPORTER (Generator completes IIa-b and Transporter completes IIc-e)

Transporter's Name and Address: J. Transporter 781 839-0502		
b. Phone:		
c. Driver Name (Print) Teresa C. Roche	d. Signature <i>Teresa C. Roche</i>	e. Date Feb 29 17

III. DESTINATION (Generator complete IIIa-c and Destination Site completes IIId-g)

a. Disposal Facility and Site Address: PONCE LANDFILL AVE. BARAMAYA #500 PONCE, P. R. 00732	b.	c. US EPA Number IDF-58-0008	d. Discrepancy Indication Space:
--	----	---------------------------------	----------------------------------

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

e. Name of Authorized Agent (Print)	f. Signature	g. Date
-------------------------------------	--------------	---------

IV. ASBESTOS (Generator completes IVa-f and Operator complete IVg-i)

a. Operator's Name and Address:	c. Responsible Agency Name and Address:
b. Phone:	d. Phone:
e. Special Handling Instructions and Additional Information:	

f. <input type="checkbox"/> Friable <input type="checkbox"/> Non-Friable <input type="checkbox"/> Both	% Friable	% Non-Friable
--	-----------	---------------

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

g. Operator's Name and Title (Print)	h. Signature	i. Date
--------------------------------------	--------------	---------

*Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation or both

(white) DESTINATION RETURN / (green) RETURN TO OPERATOR / (canary) RETURN TO GENERATOR / (pink) TRANSPORTER RETAIN / (gold) GENERATOR RETAIN

GE_SG001258



**ALLIED WASTE
INDUSTRIES INC**

ALLIED WASTE SERVICES INC.
P.O. BOX 7104
Ponce, PR 00732
Telephone: (787) 841-7775
Fax: (787) 259-2707

17N10

SERVICE TICKET #

25369

SERVICE DATE

2/28/12

SERVICE WORKSHEET

Customer: GE Industrial Solutions Acct. No. 11111111 Loc. Code: 11
Service Location: El John Ind. Park Transporter: JT Transports
Sangerman, PR Truck # F-450 Plate # HP-11326

TIME			
Manifest # <u>57330</u>	Customer Arrival:	A.M. P.M.	Landfill Arrival:
			A.M. P.M.
Service Time:	Customer Leaving:	A.M. P.M.	Landfill Leaving:
			A.M. P.M.

ROLL OFF BOXES

TRANS. CODE: 1 SYS CODE: 0100404 RTE. 404 # HAULS: 01
CONT. SIZE: _____ VOL CODE: YD COMP: N ON CALL: Y
HAUL CHRG: 1111.1 DISP. CHRG: 1111.1 OTHER CHRG: 1111.1
DISP. VOL: _____ DISP. VOL CODE: 11 DISP. SITE: 11

VANS

_____ 27" van PU ☒ Del _____ Rent _____ From: _____ To: _____
_____ 40" van
_____ 350 Truck
_____ Other

TANK TRUCK

_____ 8,000 gallons PU _____ Del _____ Rent _____ From: _____ To: _____

VACCUM TRUCK (3,000 gls)

PU _____ Del _____ Rent _____ From: _____ To: _____

DUMP TRUCKS

PU _____ Del _____ Rent _____

OTHER SERVICES:

_____ Pump _____ Waste Approval
_____ Hoses _____ Waste Approval Renewal
_____ Hydroblasting Machine _____ Analiticals
_____ Liner _____ Waiting Time
_____ Labors _____ PPE Equipment
_____ Other

Contact Person: Charlie Corden Svc Hour: 10:00AM Purchase Order # _____

Comments: _____

Customer Signature [Signature] Driver Signature [Signature]



Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

Waste Profile #
4217172542

Expiration Date
2/13/2018

I. Decision Request:

☒ Initial ☐ Recertification ☐ Change

Disposal Facility: 4217 - Ponce Landfill

Generator Name: GE Industrial Solution

Generator Site Address: Road B El Retiro Industrial Park

City: San German

County:

State: PR

Zip:

Name of Waste: Contact/Rinsate wastewater

Estimated Annual Volume: 6 Drums

II. Special Waste Department Decision:

☒ Approved ☐ Rejected

Management Method(s): ☐ Landfill ☒ Solidification ☐ Bioremediation ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☒ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☒ Not Applicable

Precautions, Conditions or Limitations on Approval

Waste containing free liquid or failing the paint filter test must be solidified immediately upon receipt at the landfill facility. Once the material is able to pass a paint filter test, it is acceptable for landfill disposal. Proper PPE must be worn when handling this material. The pH of the waste must be greater than 2.1 and less than 12.5 in order to be acceptable for solidification. It is the Generator's responsibility to ensure the Flash Point of this material is greater than 140 F. A liquid waste with a Flash Point of less than 140 F exhibits the RCRA Characteristic of Ignitability (D001) and is unacceptable for disposal.

Special Waste Analyst Signature:

Date: 2/16/2017

Name (Printed): KEITH DIAMANTI

III. Facility Decision:

☒ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee:

Date: 2/16/2017

Name (Printed):

GE_SG001260

**SPECIAL WASTE PROFILE**

Page 1 of 2

Requested Disposal Facility: 4217 Ponce LF PR

Waste Profile #

4217 17 2542

Saveable fill-in form. Restricted printing until all required (yellow) fields are completed.

I. Generator Information

Sales Rep #: 558

Generator Name: GE Industrial Solution

Generator Site Address: Road B El Retiro Industrial Park

City: San German

County: San German

State: Puerto Rico

Zip: 00683

State ID/Reg No:

State Approval/Waste Code:

(If applicable)

NAICS #:

Generator Mailing Address (if different):

Road B El Retiro Industrial Park

City: San German

County: Vega Baja

State: Puerto Rico

Zip: 683

Generator Contact Name: Jedelly Claudio

Email: jedelly.claudio.mangual@ge.com

Phone Number: (787) 270-7007

Ext:

Fax Number:

II. Billing Information

Bill To: ARCADIS Caribe P.S.C.

Contact Name: Abner Hernández

Billing Address: City View Plaza Torre 1 Suite 401 Road 165 Km 1.2

Email: abner.hernandez@arcadis.com

City: Guaynabo

State: PR

Zip: 00968

Phone: (787) 523-8760

III. Waste Stream Information

Name of Waste: Contact/Rinsate wastewater

Process Generating Waste:

Contact/Rinsate wastewater generated during purging/cleaning of underground diesel fuel pipelines containing traces of oil and all purpose degreaser (Simple Green). See attached certified sample analytical results and SDS of the degreaser.

Type of Waste:

☐

INDUSTRIAL PROCESS WASTE

☒

POLLUTION CONTROL WASTE

Physical State:

☐

SOLID

☐

SEMI-SOLID

☐

POWDER

☒

LIQUID

Method of Shipment:

☐

BULK

☒

DRUM

☐

BAGGED

☐

OTHER:

Estimated Annual Volume: 6

Drums

Frequency:

☒

ONE TIME

☐

ONGOING

Disposal Consideration:

☐

LANDFILL

☒

SOLIDIFICATION

☐

BIOREMEDIATION

IV. Representative Sample Certification☐

NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?

☒

YES or

☐

NO

Type of Sample: ☒ COMPOSITE SAMPLE ☐ GRAB SAMPLE

Sample Date: 1/27/2017

GESG-6 Pace Lab ID 2049401001

V. Physical Characteristics of Waste

					Waste Profile #	
					4217 17 2542	
Characteristic Components					% by Weight (range)	
1. water					75%	
2. degreaser (Simple Green)					23%	
3. diesel oil					2%	
4.						
5.						
Color	Odor (describe)	Does Waste Contain Free Liquids?	% Solids	pH:	Flash Point	
brown	mild	<input checked="" type="checkbox"/> YES or <input type="checkbox"/> NO	0	8.5	>158 °F	

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Chain of Custody and Required Parameters Provided for this Profile

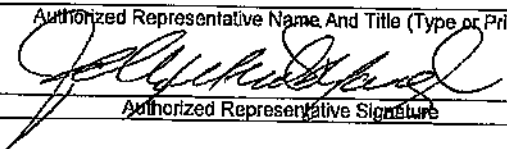

Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm)[reference 40 CFR 261.23(a)(5)]?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCDD), or any other dioxin as defined in 40 CFR 261.31?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste a reactive or heat generating waste?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does the waste contain sulfur or sulfur by-products?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste generated at a Federal Superfund Clean Up Site?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste from a TSD facility, TSD like facility or consolidator?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services Inc.

Jedelly Claudio/EHS Manager VB/VA	GE Industrial of Puerto Rico
Authorized Representative Name And Title (Type or Print)	Company Name
	
Authorized Representative Signature	Date

February 13, 2017

Efrain Calderon
BBL Caribe Engineering P.S.C.
48 City View Plaza1, Suite 401
Road 16, Km. 1.2
Guaynabo, PR 00968

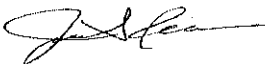
RE: Project: E074
Pace Project No.: 2049401

Dear Efrain Calderon:

Enclosed are the analytical results for sample(s) received by the laboratory on January 27, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Juan Redondo
juan.redondo@pacelabs.com
Project Manager

Enclosures

cc: Sharon Colon
Abner Hernandez
Marianela Mercado-Burgos



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: E074
Pace Project No.: 2049401

Dallas Certification IDs:

400 West Bethany Dr Suite 190, Allen, TX 75013
EPA# TX00074
Florida Certification #: E871118
Texas Certification #: T104704232
Kansas Certification #: E-10388
Arkansas Certification #: 88-0647

Oklahoma Certification #: TX00074
Louisiana Certification #: 30686
Iowa Certification #: 408
Florida Certification #: E871118
Nevada Certification #: TX00074

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: E074
Pace Project No.: 2049401

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2049401001	GESG-6	Water	01/27/17 07:15	01/27/17 14:35

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: E074
Pace Project No.: 2049401

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2049401001	GESG-6	EPA 8081	MS1	9	PASI-D
		EPA 8151	PMS	3	PASI-D
		EPA 6010	DT1	7	PASI-D
		EPA 7470	AE	1	PASI-D
		EPA 8270	XLY	18	PASI-D
		EPA 8260	BMA	13	PASI-D
		EPA 1010	KES	1	PASI-D
		SW-846 7.3.4.2	NT	1	PASI-D
		EPA 9040	AJJ	1	PASI-D
		SW-846 7.3.3.2	NT	1	PASI-D

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: E074
Pace Project No.: 2049401

Method: EPA 8081
Description: 8081 GCS Pesticides, TCLP
Client: BBL Caribe / Arcadis PR
Date: February 13, 2017

General Information:

1 sample was analyzed for EPA 8081. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: E074
Pace Project No.: 2049401

Method: EPA 8151
Description: 8151 Chlorinate Herbicide TCLP
Client: BBL Caribe / Arcadis PR
Date: February 13, 2017

General Information:

1 sample was analyzed for EPA 8151. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 8151 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 69925

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 301512)
- 2,4-D

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 69925

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7559934001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 301513)
- 2,4-D
- MSD (Lab ID: 301514)
- 2,4-D

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: E074
Pace Project No.: 2049401

Method: EPA 6010
Description: 6010 Metals, TCLP
Client: BBL Caribe / Arcadis PR
Date: February 13, 2017

General Information:

1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: E074
Pace Project No.: 2049401

Method: EPA 7470
Description: 7470 Mercury, TCLP
Client: BBL Caribe / Arcadis PR
Date: February 13, 2017

General Information:

1 sample was analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: E074
Pace Project No.: 2049401

Method: EPA 8270
Description: 8270 MSSV TCLP Sep Funnel
Client: BBL Caribe / Arcadis PR
Date: February 13, 2017

General Information:

1 sample was analyzed for EPA 8270. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: E074
Pace Project No.: 2049401

Method: EPA 8260
Description: 8260 MSV TCLP
Client: BBL Caribe / Arcadis PR
Date: February 13, 2017

General Information:

1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: E074
Pace Project No.: 2049401

Method: EPA 1010
Description: 1010 Flashpoint, Closed Cup
Client: BBL Caribe / Arcadis PR
Date: February 13, 2017

General Information:

1 sample was analyzed for EPA 1010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: E074
Pace Project No.: 2049401

Method: SW-846 7.3.4.2
Description: Reactive Sulfide
Client: BBL Caribe / Arcadis PR
Date: February 13, 2017

General Information:

1 sample was analyzed for SW-846 7.3.4.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with SW-846 7.3.4.2 with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 69522

N2: The lab does not hold NELAC/TNI accreditation for this parameter.

- BLANK (Lab ID: 299546)
 - Sulfide, Reactive
- DUP (Lab ID: 299549)
 - Sulfide, Reactive
- GESG-6 (Lab ID: 2049401001)
 - Sulfide, Reactive

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: E074
Pace Project No.: 2049401

Method: EPA 9040
Description: 9040 pH
Client: BBL Caribe / Arcadis PR
Date: February 13, 2017

General Information:

1 sample was analyzed for EPA 9040. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

- H6: Analysis initiated outside of the 15 minute EPA required holding time.
• GESG-6 (Lab ID: 2049401001)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: E074
Pace Project No.: 2049401

Method: SW-846 7.3.3.2
Description: 733C S Reactive Cyanide
Client: BBL Caribe / Arcadis PR
Date: February 13, 2017

General Information:

1 sample was analyzed for SW-846 7.3.3.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with SW-846 7.3.3.2 with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 69521

N2: The lab does not hold NELAC/TNI accreditation for this parameter.

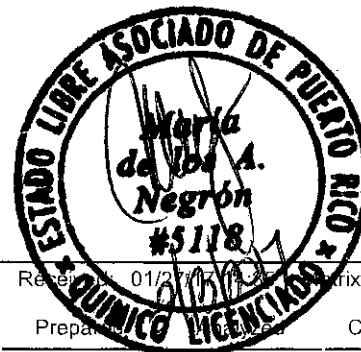
- BLANK (Lab ID: 299544)
 - Cyanide, Reactive
- DUP (Lab ID: 299545)
 - Cyanide, Reactive
- GESG-6 (Lab ID: 2049401001)
 - Cyanide, Reactive

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS



Project: E074
Pace Project No.: 2049401

Sample:	GESG-6	Lab ID:	2049401001	Collected:	01/27/17 07:15	Release:	01/27/17 13:00	Matrix:	Water
Parameters	Results	Units	Report Limit	DF	Preparation	CAS No.	Qual		
8081 GCS Pesticides, TCLP									
Analytical Method: EPA 8081 Preparation Method: EPA 3510									
Leachate Method/Date: EPA 1311; 02/02/17 16:30									
gamma-BHC (Lindane)	ND	mg/L	0.00010	1	02/08/17 17:35	02/10/17 13:04	58-89-9		
Chlordane (Technical)	ND	mg/L	0.0010	1	02/08/17 17:35	02/10/17 13:04	57-74-9		
Endrin	ND	mg/L	0.00010	1	02/08/17 17:35	02/10/17 13:04	72-20-8		
Heptachlor	ND	mg/L	0.00010	1	02/08/17 17:35	02/10/17 13:04	76-44-8		
Heptachlor epoxide	ND	mg/L	0.00010	1	02/08/17 17:35	02/10/17 13:04	1024-57-3		
Methoxychlor	ND	mg/L	0.00010	1	02/08/17 17:35	02/10/17 13:04	72-43-5		
Toxaphene	ND	mg/L	0.0030	1	02/08/17 17:35	02/10/17 13:04	8001-35-2		
Surrogates									
Decachlorobiphenyl (S)	126	%	40-140	1	02/08/17 17:35	02/10/17 13:04	2051-24-3		
Tetrachloro-m-xylene (S)	98	%	40-140	1	02/08/17 17:35	02/10/17 13:04	877-09-8		
8151 Chlorinate Herbicide TCLP									
Analytical Method: EPA 8151 Preparation Method: EPA 8151									
Leachate Method/Date: EPA 1311; 02/02/17 16:30									
2,4-D	ND	mg/L	0.00050	1	02/08/17 19:30	02/09/17 16:04	94-75-7		L3
2,4,5-TP (Silvex)	ND	mg/L	0.00050	1	02/08/17 19:30	02/09/17 16:04	93-72-1		
Surrogates									
2,4-DCAA (S)	70	%	40-140	1	02/08/17 19:30	02/09/17 16:04	19719-28-9		
6010 Metals, TCLP									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1311; 02/02/17 16:30									
Arsenic	ND	mg/L	0.050	1	02/03/17 09:50	02/03/17 18:16	7440-38-2		
Barium	0.17	mg/L	0.050	1	02/03/17 09:50	02/03/17 18:16	7440-39-3		
Cadmium	ND	mg/L	0.010	1	02/03/17 09:50	02/03/17 18:16	7440-43-9		
Chromium	ND	mg/L	0.050	1	02/03/17 09:50	02/03/17 18:16	7440-47-3		
Lead	ND	mg/L	0.050	1	02/03/17 09:50	02/03/17 18:16	7439-92-1		
Selenium	ND	mg/L	0.10	1	02/03/17 09:50	02/03/17 18:16	7782-49-2		
Silver	ND	mg/L	0.020	1	02/03/17 09:50	02/03/17 18:16	7440-22-4		
7470 Mercury, TCLP									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Leachate Method/Date: EPA 1311; 02/02/17 16:30									
Mercury	ND	mg/L	0.00020	1	02/03/17 09:00	02/03/17 14:05	7439-97-6		
8270 MSSV TCLP Sep Funnel									
Analytical Method: EPA 8270 Preparation Method: EPA 3510									
Leachate Method/Date: EPA 1311; 02/02/17 16:30									
1,4-Dichlorobenzene	ND	mg/L	0.060	2	02/08/17 10:30	02/09/17 00:59	106-46-7		
2,4-Dinitrotoluene	ND	mg/L	0.060	2	02/08/17 10:30	02/09/17 00:59	121-14-2		
Hexachloro-1,3-butadiene	ND	mg/L	0.10	2	02/08/17 10:30	02/09/17 00:59	87-68-3		
Hexachlorobenzene	ND	mg/L	0.060	2	02/08/17 10:30	02/09/17 00:59	118-74-1		
Hexachloroethane	ND	mg/L	0.060	2	02/08/17 10:30	02/09/17 00:59	67-72-1		
2-Methylphenol(o-Cresol)	ND	mg/L	0.060	2	02/08/17 10:30	02/09/17 00:59	95-48-7		
3&4-Methylphenol(m&p Cresol)	ND	mg/L	0.10	2	02/08/17 10:30	02/09/17 00:59			
Nitrobenzene	ND	mg/L	0.10	2	02/08/17 10:30	02/09/17 00:59	98-95-3		
Pentachlorophenol	ND	mg/L	0.10	2	02/08/17 10:30	02/09/17 00:59	87-86-5		
Pyridine	ND	mg/L	0.060	2	02/08/17 10:30	02/09/17 00:59	110-86-1		
2,4,5-Trichlorophenol	ND	mg/L	0.060	2	02/08/17 10:30	02/09/17 00:59	95-95-4		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: E074
Pace Project No.: 2049401

Sample: GESG-6		Lab ID: 2049401001		Collected: 01/27/17 07:15		Received: 01/27/17 14:35		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8270 MSSV TCLP Sep Funnel									
Analytical Method: EPA 8270 Preparation Method: EPA 3510									
Leachate Method/Date: EPA 1311; 02/02/17 16:30									
2,4,6-Trichlorophenol	ND	mg/L	0.10	2	02/08/17 10:30	02/09/17 00:59	88-06-2		
Surrogates									
Nitrobenzene-d5 (S)	79	%	10-140	2	02/08/17 10:30	02/09/17 00:59	4165-60-0		
2-Fluorobiphenyl (S)	80	%	10-140	2	02/08/17 10:30	02/09/17 00:59	321-60-8		
p-Terphenyl-d14 (S)	98	%	10-140	2	02/08/17 10:30	02/09/17 00:59	1718-51-0		
Phenol-d6 (S)	68	%	10-140	2	02/08/17 10:30	02/09/17 00:59	13127-88-3		
2-Fluorophenol (S)	80	%	10-140	2	02/08/17 10:30	02/09/17 00:59	367-12-4		
2,4,6-Tribromophenol (S)	78	%	10-140	2	02/08/17 10:30	02/09/17 00:59	118-79-6		
8260 MSV TCLP									
Analytical Method: EPA 8260 Leachate Method/Date: EPA 1311; 02/08/17 16:06									
Benzene	ND	mg/L	0.030	1		02/10/17 01:38	71-43-2		
2-Butanone (MEK)	ND	mg/L	0.10	1		02/10/17 01:38	78-93-3		
Carbon tetrachloride	ND	mg/L	0.030	1		02/10/17 01:38	56-23-5		
Chlorobenzene	ND	mg/L	0.030	1		02/10/17 01:38	108-90-7		
Chloroform	ND	mg/L	0.030	1		02/10/17 01:38	67-66-3		
1,2-Dichloroethane	ND	mg/L	0.030	1		02/10/17 01:38	107-06-2		
1,1-Dichloroethene	ND	mg/L	0.030	1		02/10/17 01:38	75-35-4		
Tetrachloroethene	ND	mg/L	0.030	1		02/10/17 01:38	127-18-4		
Trichloroethene	ND	mg/L	0.030	1		02/10/17 01:38	79-01-6		
Vinyl chloride	ND	mg/L	0.020	1		02/10/17 01:38	75-01-4		
Surrogates									
1,2-Dichloroethane-d4 (S)	118	%	70-130	1		02/10/17 01:38	17060-07-0		
Toluene-d8 (S)	123	%	70-130	1		02/10/17 01:38	2037-26-5		
4-Bromofluorobenzene (S)	112	%	70-130	1		02/10/17 01:38	460-00-4		
1010 Flashpoint,Closed Cup									
Analytical Method: EPA 1010									
Flashpoint	>158	deg F	32.9	1		02/08/17 14:27			
Reactive Sulfide									
Analytical Method: SW-846 7.3.4.2 Preparation Method: SW-846 7.3.4.2									
Sulfide, Reactive	ND	mg/kg	60.0	1	02/03/17 11:15	02/03/17 14:04		N2	
9040 pH									
Analytical Method: EPA 9040									
pH at 25 Degrees C	8.5	Std. Units	0.10	1		02/06/17 13:14		H6	
733C S Reactive Cyanide									
Analytical Method: SW-846 7.3.3.2 Preparation Method: SW-846 7.3.3.2									
Cyanide, Reactive	ND	mg/kg	0.20	1	02/03/17 11:15	02/03/17 15:39		N2	



REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: E074
Pace Project No.: 2049401

QC Batch: 69525	Analysis Method: EPA 7470
QC Batch Method: EPA 7470	Analysis Description: 7470 Mercury TCLP
Associated Lab Samples: 2049401001	

METHOD BLANK: 299562 Matrix: Water
Associated Lab Samples: 2049401001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	02/03/17 15:40	

LABORATORY CONTROL SAMPLE: 299563

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0025	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 299564 299565

Parameter	Units	7559573001 Result	MS Spike Conc.	MSD Spike Conc.	299565		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
					MS Result	MSD Result					
Mercury	mg/L	ND	.0025	.0025	0.0026	0.0026	104	102	70-130	2 20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: E074
Pace Project No.: 2049401

QC Batch: 69526 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET TCLP
Associated Lab Samples: 2049401001

METHOD BLANK: 299566 Matrix: Water
Associated Lab Samples: 2049401001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.050	02/03/17 16:29	
Barium	mg/L	ND	0.050	02/03/17 16:29	
Cadmium	mg/L	ND	0.010	02/03/17 16:29	
Chromium	mg/L	ND	0.050	02/03/17 16:29	
Lead	mg/L	ND	0.050	02/03/17 16:29	
Selenium	mg/L	ND	0.10	02/03/17 16:29	
Silver	mg/L	ND	0.020	02/03/17 16:29	

LABORATORY CONTROL SAMPLE: 299567

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	10	9.1	91	80-120	
Barium	mg/L	10	9.8	98	80-120	
Cadmium	mg/L	10	9.5	95	80-120	
Chromium	mg/L	10	10	100	80-120	
Lead	mg/L	10	9.6	96	80-120	
Selenium	mg/L	10	9.3	93	80-120	
Silver	mg/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 299568 299569

Parameter	Units	7559720001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Arsenic	mg/L	ND	10	10	9.5	9.7	95	97	75-125	2	20
Barium	mg/L	1.3	10	10	11.0	11.3	97	100	75-125	3	20
Cadmium	mg/L	ND	10	10	9.8	10	98	100	75-125	2	20
Chromium	mg/L	ND	10	10	9.8	10.1	98	101	75-125	2	20
Lead	mg/L	0.067	10	10	9.4	9.6	93	95	75-125	2	20
Selenium	mg/L	ND	10	10	9.9	10.1	99	101	75-125	2	20
Silver	mg/L	ND	5	5	5.1	5.3	103	107	75-125	4	20

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: E074
Pace Project No.: 2049401

QC Batch: 70004 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV TCLP
Associated Lab Samples: 2049401001

METHOD BLANK: 302027 Matrix: Water
Associated Lab Samples: 2049401001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethene	mg/L	ND	0.030	02/10/17 01:09	
1,2-Dichloroethane	mg/L	ND	0.030	02/10/17 01:09	
2-Butanone (MEK)	mg/L	ND	0.10	02/10/17 01:09	
Benzene	mg/L	ND	0.030	02/10/17 01:09	
Carbon tetrachloride	mg/L	ND	0.030	02/10/17 01:09	
Chlorobenzene	mg/L	ND	0.030	02/10/17 01:09	
Chloroform	mg/L	ND	0.030	02/10/17 01:09	
Tetrachloroethene	mg/L	ND	0.030	02/10/17 01:09	
Trichloroethene	mg/L	ND	0.030	02/10/17 01:09	
Vinyl chloride	mg/L	ND	0.020	02/10/17 01:09	
1,2-Dichloroethane-d4 (S)	%	115	70-130	02/10/17 01:09	
4-Bromofluorobenzene (S)	%	107	70-130	02/10/17 01:09	
Toluene-d8 (S)	%	123	70-130	02/10/17 01:09	

LABORATORY CONTROL SAMPLE: 302028

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	mg/L	.2	0.21	104	70-130	
1,2-Dichloroethane	mg/L	.2	0.26	128	70-130	
2-Butanone (MEK)	mg/L	1	0.92	91	40-140	
Benzene	mg/L	.2	0.24	120	70-130	
Carbon tetrachloride	mg/L	.2	0.18	91	70-130	
Chlorobenzene	mg/L	.2	0.21	104	70-130	
Chloroform	mg/L	.2	0.24	120	70-130	
Tetrachloroethene	mg/L	.2	0.18	91	70-130	
Trichloroethene	mg/L	.2	0.22	111	70-130	
Vinyl chloride	mg/L	.2	0.21	103	70-130	
1,2-Dichloroethane-d4 (S)	%			124	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			115	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 302029 302030

Parameter	Units	2049401001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
1,1-Dichloroethene	mg/L	ND	.2	.2	0.21	0.21	105	106	60-140	1	40
1,2-Dichloroethane	mg/L	ND	.2	.2	0.26	0.26	132	131	60-140	0	40
2-Butanone (MEK)	mg/L	ND	1	1	1.1	1.1	105	106	40-140	1	40

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GE_SG001281 Page 19 of 33

QUALITY CONTROL DATA

Project: E074
Pace Project No.: 2049401

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 302029 302030												
Parameter	Units	2049401001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
Benzene	mg/L	ND	.2	.2	0.24	0.24	123	119	60-140	3	40	
Carbon tetrachloride	mg/L	ND	.2	.2	0.19	0.18	94	92	60-140	2	40	
Chlorobenzene	mg/L	ND	.2	.2	0.21	0.21	106	103	60-140	2	40	
Chloroform	mg/L	ND	.2	.2	0.24	0.24	119	119	60-140	0	40	
Tetrachloroethene	mg/L	ND	.2	.2	0.18	0.17	92	86	60-140	6	40	
Trichloroethene	mg/L	ND	.2	.2	0.23	0.22	113	109	60-140	4	40	
Vinyl chloride	mg/L	ND	.2	.2	0.21	0.21	105	106	60-140	1	40	
1,2-Dichloroethane-d4 (S)	%						124	124	70-130			
4-Bromofluorobenzene (S)	%						100	98	70-130			
Toluene-d8 (S)	%						113	114	70-130			

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QUALITY CONTROL DATA

Project: E074
Pace Project No.: 2049401

QC Batch: 69905 Analysis Method: EPA 8081
QC Batch Method: EPA 3510 Analysis Description: 8081 GCS TCLP Pesticides
Associated Lab Samples: 2049401001

METHOD BLANK: 301434 Matrix: Water
Associated Lab Samples: 2049401001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chlordane (Technical)	mg/L	ND	0.0010	02/09/17 10:12	
Endrin	mg/L	ND	0.00010	02/09/17 10:12	
gamma-BHC (Lindane)	mg/L	ND	0.00010	02/09/17 10:12	
Heptachlor	mg/L	ND	0.00010	02/09/17 10:12	
Heptachlor epoxide	mg/L	ND	0.00010	02/09/17 10:12	
Methoxychlor	mg/L	ND	0.00010	02/09/17 10:12	
Toxaphene	mg/L	ND	0.0030	02/09/17 10:12	
Decachlorobiphenyl (S)	%	100	40-140	02/09/17 10:12	
Tetrachloro-m-xylene (S)	%	88	40-140	02/09/17 10:12	

LABORATORY CONTROL SAMPLE: 301435

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Endrin	mg/L	.01	0.011	105	40-140	
gamma-BHC (Lindane)	mg/L	.01	0.011	107	40-140	
Heptachlor	mg/L	.01	0.010	100	40-140	
Heptachlor epoxide	mg/L	.01	0.011	106	40-140	
Methoxychlor	mg/L	.01	0.0092	92	40-140	
Decachlorobiphenyl (S)	%			122	40-140	
Tetrachloro-m-xylene (S)	%			101	40-140	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 301436 301437

Parameter	Units	7559934001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Endrin	mg/L	ND	.01	.01	0.013	0.012	125	122	40-140	3	40
gamma-BHC (Lindane)	mg/L	ND	.01	.01	0.012	0.012	124	122	40-140	2	40
Heptachlor	mg/L	ND	.01	.01	0.013	0.013	129	130	40-140	1	40
Heptachlor epoxide	mg/L	ND	.01	.01	0.012	0.012	120	117	40-140	2	40
Methoxychlor	mg/L	ND	.01	.01	0.012	0.011	116	106	40-140	9	40
Decachlorobiphenyl (S)	%						132	133	40-140		
Tetrachloro-m-xylene (S)	%						102	105	40-140		

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GE_SG001283 Page 21 of 33

QUALITY CONTROL DATA

Project: E074
Pace Project No.: 2049401

QC Batch: 69925 Analysis Method: EPA 8151
QC Batch Method: EPA 8151 Analysis Description: 8151 GCS TCLP Herbicides
Associated Lab Samples: 2049401001

METHOD BLANK: 301511 Matrix: Water
Associated Lab Samples: 2049401001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,5-TP (Silvex)	mg/L	ND	0.000050	02/09/17 14:00	
2,4-D	mg/L	ND	0.000050	02/09/17 14:00	
2,4-DCAA (S)	%	109	40-140	02/09/17 14:00	

LABORATORY CONTROL SAMPLE: 301512

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-TP (Silvex)	mg/L	.002	0.0025	126	76-145	
2,4-D	mg/L	.002	0.0031	154	67-148 LO	
2,4-DCAA (S)	%			121	40-140	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 301513 301514

Parameter	Units	7559934001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4,5-TP (Silvex)	mg/L	ND	.02	.02	0.024	0.023	118	114	10-140	3	40	
2,4-D	mg/L	ND	.02	.02	0.030	0.029	148	145	40-140	2	40	M0
2,4-DCAA (S)	%						93	97	40-140			

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QUALITY CONTROL DATA

Project: E074
Pace Project No.: 2049401

QC Batch: 69889 Analysis Method: EPA 8270
QC Batch Method: EPA 3510 Analysis Description: 8270 TCLP MSSV
Associated Lab Samples: 2049401001

METHOD BLANK: 301299 Matrix: Water
Associated Lab Samples: 2049401001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dichlorobenzene	mg/L	ND	0.060	02/08/17 16:22	
2,4,5-Trichlorophenol	mg/L	ND	0.060	02/08/17 16:22	
2,4,6-Trichlorophenol	mg/L	ND	0.10	02/08/17 16:22	
2,4-Dinitrotoluene	mg/L	ND	0.060	02/08/17 16:22	
2-Methylphenol(o-Cresol)	mg/L	ND	0.060	02/08/17 16:22	
3&4-Methylphenol(m&p Cresol)	mg/L	ND	0.10	02/08/17 16:22	
Hexachloro-1,3-butadiene	mg/L	ND	0.10	02/08/17 16:22	
Hexachlorobenzene	mg/L	ND	0.060	02/08/17 16:22	
Hexachloroethane	mg/L	ND	0.060	02/08/17 16:22	
Nitrobenzene	mg/L	ND	0.10	02/08/17 16:22	
Pentachlorophenol	mg/L	ND	0.10	02/08/17 16:22	
Pyridine	mg/L	ND	0.060	02/08/17 16:22	
2,4,6-Tribromophenol (S)	%	75	10-140	02/08/17 16:22	
2-Fluorobiphenyl (S)	%	98	10-140	02/08/17 16:22	
2-Fluorophenol (S)	%	94	10-140	02/08/17 16:22	
Nitrobenzene-d5 (S)	%	90	10-140	02/08/17 16:22	
p-Terphenyl-d14 (S)	%	98	10-140	02/08/17 16:22	
Phenol-d6 (S)	%	87	10-140	02/08/17 16:22	

LABORATORY CONTROL SAMPLE: 301300

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	mg/L	1	0.83	83	40-140	
2,4,5-Trichlorophenol	mg/L	1	1.0	100	40-140	
2,4,6-Trichlorophenol	mg/L	1	1.0	102	40-140	
2,4-Dinitrotoluene	mg/L	1	0.74	74	40-140	
2-Methylphenol(o-Cresol)	mg/L	1	1.0	102	10-140	
3&4-Methylphenol(m&p Cresol)	mg/L	2	2.1	104	10-140	
Hexachloro-1,3-butadiene	mg/L	1	0.82	82	32-140	
Hexachlorobenzene	mg/L	1	1.0	101	40-140	
Hexachloroethane	mg/L	1	0.79	79	32-140	
Nitrobenzene	mg/L	1	0.97	97	40-140	
Pentachlorophenol	mg/L	1	0.84	84	10-140	
Pyridine	mg/L	1	0.52	52	1-140	
2,4,6-Tribromophenol (S)	%			84	10-140	
2-Fluorobiphenyl (S)	%			93	10-140	
2-Fluorophenol (S)	%			94	10-140	
Nitrobenzene-d5 (S)	%			87	10-140	
p-Terphenyl-d14 (S)	%			98	10-140	
Phenol-d6 (S)	%			86	10-140	

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QUALITY CONTROL DATA

Project: E074
Pace Project No.: 2049401

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 301301 301302												
Parameter	Units	2049729001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
1,4-Dichlorobenzene	mg/L	ND	1	1	0.67	0.72	67	72	14-139	7	40	
2,4,5-Trichlorophenol	mg/L	ND	1	1	0.90	0.95	90	95	40-140	5	40	
2,4,6-Trichlorophenol	mg/L	ND	1	1	0.76	0.83	76	83	40-140	9	40	
2,4-Dinitrotoluene	mg/L	ND	1	1	0.75	0.86	75	86	40-140	14	40	
2-Methylphenol(o-Cresol)	mg/L	ND	1	1	0.78	0.86	78	86	10-140	11	40	
3&4-Methylphenol(m&p Cresol)	mg/L	ND	2	2	1.7	1.9	85	94	10-140	10	40	
Hexachloro-1,3-butadiene	mg/L	ND	1	1	0.69	0.72	69	72	10-141	5	40	
Hexachlorobenzene	mg/L	ND	1	1	0.87	0.83	87	83	40-140	5	40	
Hexachloroethane	mg/L	ND	1	1	0.68	0.72	68	72	32-140	6	40	
Nitrobenzene	mg/L	ND	1	1	0.76	0.83	76	83	40-140	9	40	
Pentachlorophenol	mg/L	ND	1	1	0.72	0.85	72	85	10-140	17	40	
Pyridine	mg/L	ND	1	1	0.37	0.26	37	26	1-140	33	40	
2,4,6-Tribromophenol (S)	%						73	80	10-140			
2-Fluorobiphenyl (S)	%						75	71	10-140			
2-Fluorophenol (S)	%						82	84	10-140			
Nitrobenzene-d5 (S)	%						76	75	10-140			
p-Terphenyl-d14 (S)	%						97	82	10-140			
Phenol-d6 (S)	%						73	74	10-140			

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QUALITY CONTROL DATA

Project: E074
Pace Project No.: 2049401

QC Batch: 69824	Analysis Method: EPA 1010
QC Batch Method: EPA 1010	Analysis Description: 1010 Flash Point, Closed Cup
Associated Lab Samples: 2049401001	

METHOD BLANK: 300978 Matrix: Water
Associated Lab Samples: 2049401001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Flashpoint	deg F	>158	32.9	02/08/17 09:38	

LABORATORY CONTROL SAMPLE: 300979

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Flashpoint	deg F		81.69			

SAMPLE DUPLICATE: 300980

Parameter	Units	7559952001 Result	Dup Result	RPD	Max RPD	Qualifiers
Flashpoint	deg F	>158	>158			

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QUALITY CONTROL DATA

Project: E074
Pace Project No.: 2049401

QC Batch: 69522	Analysis Method: SW-846 7.3.4.2
QC Batch Method: SW-846 7.3.4.2	Analysis Description: Reactive Sulfide
Associated Lab Samples: 2049401001	

METHOD BLANK: 299546 Matrix: Solid
Associated Lab Samples: 2049401001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide, Reactive	mg/kg	ND	60.0	02/03/17 13:35	N2

SAMPLE DUPLICATE: 299549

Parameter	Units	7559444001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Reactive	mg/kg	ND	ND		20	N2

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QUALITY CONTROL DATA

Project: E074
Pace Project No.: 2049401

QC Batch: 69640	Analysis Method: EPA 9040
QC Batch Method: EPA 9040	Analysis Description: 9040 pH
Associated Lab Samples: 2049401001	

LABORATORY CONTROL SAMPLE: 300290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	6	6.0	100	99-101	H6

SAMPLE DUPLICATE: 300291

Parameter	Units	7559336001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	5.9	5.8	1	20	H6

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QUALITY CONTROL DATA

Project: E074
Pace Project No.: 2049401

QC Batch: 69521 Analysis Method: SW-846 7.3.3.2
QC Batch Method: SW-846 7.3.3.2 Analysis Description: 733C Reactive Cyanide
Associated Lab Samples: 2049401001

METHOD BLANK: 299544 Matrix: Solid
Associated Lab Samples: 2049401001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide, Reactive	mg/kg	ND	0.20	02/03/17 15:36	N2

SAMPLE DUPLICATE: 299545

Parameter	Units	7559444001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide, Reactive	mg/kg	ND	ND		30	N2

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QUALIFIERS

Project: E074
Pace Project No.: 2049401

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The Nelac Institute

LABORATORIES

PASI-D Pace Analytical Services - Dallas

ANALYTE QUALIFIERS

H6 Analysis initiated outside of the 15 minute EPA required holding time.
L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples.
M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2 The lab does not hold NELAC/TNI accreditation for this parameter.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: E074
Pace Project No.: 2049401

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2049401001	GESG-6	EPA 3510	69905	EPA 8081	69952
2049401001	GESG-6	EPA 8151	69925	EPA 8151	69990
2049401001	GESG-6	EPA 3010	69526	EPA 6010	69539
2049401001	GESG-6	EPA 7470	69525	EPA 7470	69543
2049401001	GESG-6	EPA 3510	69889	EPA 8270	69975
2049401001	GESG-6	EPA 8260	70004		
2049401001	GESG-6	EPA 1010	69824		
2049401001	GESG-6	SW-846 7.3.4.2	69522	SW-846 7.3.4.2	69555
2049401001	GESG-6	EPA 9040	69640		
2049401001	GESG-6	SW-846 7.3.3.2	69521	SW-846 7.3.3.2	69556

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INTER_LABORATORY WORK ORDER # 2049401

(To be completed by sending lab)

Ship To:
Pace Analytical Dallas
West Bethany
Suite 190
Allen, TX 75013
Phone (972)727-1123

Sending Project No:	2049401
Receiving Project No:	
Check Box for Consolidated Invoice:	<input type="checkbox"/>
Date Prepared:	01/30/17
REQUESTED COMPLETION DATE:	2/10/2017

Sending Region	IR20-New Orleans	Sending Project Mgr.	Juan Redondo
Receiving Region	IR75-Dallas	External Client	BBL Caribe / Arcadis PR
State of Sample Origin		QC Deliverable	STD REPORT

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? Wet Cert. Needed _____

WORK REQUESTED						
Item Description	Quantity	Unit	Price	Amount		
OTHER	1	Other	\$645.00	\$645.00		
TOTAL				\$645.00		

Special Requirements: Full JCLP + RCL

Receiving Region/Department	Attn: Code	Totals from Above	Revenue Allocation	Client Services Dept
Wet Chemistry	21	\$645.00	\$516.00	\$129.00
* Custom Revenue Allocation	TOTAL	\$645.00	\$516.00	\$129.00

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Chain of Custody Included: ☒ Yes ☐ No Return Samples to Sending Region: ☐ Yes ☒ No
Matrix: ☐ Soil ☒ Water ☐ Air ☐ Other (Identify) _____

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

DISPOSITION OF WORK

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

Invoice: Date : 01Feb17 Shipping : 67.96
Customer : Weight : 52.55 LBS Special : 1.70
Phone : (972)727-1123 COD : Handling : 0.00
Dept : DV : 0.00 Total : 69.66

Svcs: STANDARD OVERNIGHT
TRCK: 7076 5931 0527

Chain of Custody



Workorder: 2049401

Workorder Name: E074

Owner Received Date: 1/27/2017 Results Requested By: 2/10/2017

Report to:		Substrate:		Requested Analysis:																																		
Juan Redondo Pace PR Service Center Urb. Jardines de Guaynabo Calle Marginal Bldg A-10 Guayanbo, PR 00969		Pace Analytical Dallas West Bethany Suite 190 Allen, TX 75013 Phone (972)727-1123																																				
				LAB USE ONLY																																		
Item	Sample	Sample No.	Date/Time	Lab ID	Matrix	Other																																
1	GESG-6	PS	1/27/2017 07:15	2049401001	Water	4																																
2																																						
3																																						
4																																						
5																																						
<table border="1"> <thead> <tr> <th>Transfers</th> <th>Released By</th> <th>Date/Time</th> <th>Received By</th> <th>Date/Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><i>[Signature]</i></td> <td>1/30/17</td> <td>Fed Ex</td> <td>1/30/17 06:35</td> </tr> <tr> <td>2</td> <td><i>[Signature]</i></td> <td>2/17/17</td> <td>Fed Ex</td> <td></td> </tr> <tr> <td>3</td> <td><i>[Signature]</i></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>																			Transfers	Released By	Date/Time	Received By	Date/Time	1	<i>[Signature]</i>	1/30/17	Fed Ex	1/30/17 06:35	2	<i>[Signature]</i>	2/17/17	Fed Ex		3	<i>[Signature]</i>			
Transfers	Released By	Date/Time	Received By	Date/Time																																		
1	<i>[Signature]</i>	1/30/17	Fed Ex	1/30/17 06:35																																		
2	<i>[Signature]</i>	2/17/17	Fed Ex																																			
3	<i>[Signature]</i>																																					
Cooler Temperature on Receipt °C		Custody Seal Y or N		Received on Ice Y or N		Samples Intact Y or N																																

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Section 1: PRODUCT & COMPANY IDENTIFICATION

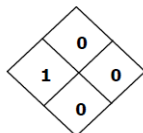
Product Name: Simple Green® All-Purpose Cleaner
Additional Names: Simple Green® Concentrated Cleaner Degreaser Deodorizer
Simple Green® Scrubbing Pad (Fluid in pad only)

Manufacturer's Part Number: *Please refer to page 4

Company: Sunshine Makers, Inc.
15922 Pacific Coast Highway
Huntington Beach, CA 92649 USA
Telephone: 800-228-0709 • 562-795-6000 Fax: 562-592-3830
Emergency Phone: Chem-Tel 24-Hour Emergency Service: 800-255-3924

Section 2: HAZARDS IDENTIFICATION

Emergency Overview: **CAUTION. Irritant. This is a Green colored liquid with a sassafras added odor. Scrubbing pad is a green fibrous rectangle infused with Simple Green Cleaner.**



NFPA/HMIS Rating:

Health = 1 = slight

Fire, Reactivity, and Special = 0 = minimal

Potential Health Effects

Eye Contact: Mildly irritating.

Skin Contact: No adverse effects expected under typical use conditions. Prolonged exposure may cause dryness. Chemically sensitive individuals may experience mild irritation.

Ingestion: May cause stomach or intestinal irritation if swallowed.

Inhalation: No adverse effects expected under typical use conditions. Adequate ventilation should be present for prolonged usage in small enclosed areas.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>CAS Number</u>	<u>Percent Range</u>
Water	7732-18-5	≥ 78%
2-butoxyethanol	111-76-2	≤ 5%
Ethoxylated Alcohol	68439-46-3	≤ 5%
Tetrapotassium Pyrophosphate	7320-34-5	≤ 5%
Sodium Citrate	68-04-2	≤ 5%
Fragrance	Proprietary Mixture	≤ 1%
Colorant	Proprietary Mixture	≤ 1%

Section 4: FIRST AID MEASURES

If Inhaled: If adverse effect occurs, move to fresh air.

If on skin: If adverse effect occurs, rinse skin with water.

If in eyes: Flush with plenty of water. After 5 minutes of flushing, remove contact lenses, if present. Continue flushing for at least 10 more minutes. If irritation persists seek medical attention.

If ingested: Drink plenty of water to dilute.

Section 5: FIRE FIGHTING MEASURES

This formula is stable, non-flammable, and will not burn. No special procedures necessary

Flammability: Non-flammable

Flash Point: Non-flammable

Suitable Extinguishing Media: Use Dry chemical, CO₂, water spray or “alcohol” foam.

Extinguishing Media to Avoid High volume jet water.

Special Exposure Hazards: In event of fire created carbon oxides, oxides of phosphorus may be formed.

Special Protective Equipment: Wear positive pressure self-contained breathing apparatus; Wear full protective clothing.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: See section 8 – personal protection.

Environmental Precautions: Do not allow into open waterways and ground water systems.

Method for Clean Up: Dilute with water and rinse into sanitary sewer system or soak up with inert absorbent material.

Section 7: HANDLING AND STORAGE

Handling: Keep container tightly closed. Ensure adequate ventilation. Keep out of reach of children.

Storage: Keep in cool dry area.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure Limit Values:**

	OSHA PEL	ACGIH TLV
2-butoxyethanol	TWA 50 ppm (240 mg/m ³)	20 ppm (97 mg/m ³)
Tetrapotassium Pyrophosphate		5 mg/m ³

Exposure Controls:

Eye Contact: Use protective glasses if splashing or spray-back is likely.

Respiratory: Use in well ventilated areas.

Skin Contact: Prolonged exposure or dermal sensitive individuals should use protective gloves.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Green Liquid	Vapor Pressure:	18 mmHg @20°C; 23.5 mmHg @26°C	
Odor:	Added Sassafras odor	Density:	8.5 lb/gal;	
Specific Gravity:	1.010 ± 0.010	Water Solubility:	100%	
pH:	9.5 ± 0.5	VOC composite Partial Pressure:	TBD	
Boiling Point:	~210°F (98 °C)	VOC:	CARB Method 310	3.8%
Freezing Point:	~ 32°F (0 °C)		SCAQMD Method 313	2.8%
Nutrient Content:	Phosphorous: 0.28% Chloride: ~110 ppm	Sulfur: ~180 ppm Fluorine: ~90 ppm		

Section 10: STABILITY AND REACTIVITY

Stability: Stable
Materials to Avoid: None known
Hazardous Decomposition Products: Normal products of combustion - CO, CO₂; Oxides of Phosphorous may occur.

Section 11: TOXICOLOGICAL INFORMATION

Acute Toxicity: Oral LD₅₀ (rat) > 5 g/kg body weight
Dermal LD₅₀ (rabbit) > 5 g/kg body weight
Toxicity calculated from ingredients using OECD SERIES ON TESTING AND ASSESSMENT Number 33

Carcinogens: No ingredients are listed by OSHA, IARC, or NTP as known or suspected carcinogens.

Section 12: ECOLOGICAL INFORMATION

Hazard to wild mammals: Low, based on toxicology profile
Hazard to avian species: Low, based on toxicology profile
Hazard to aquatic organisms: Low, based on toxicology profile
Chemical Fate Information: Readily Biodegradable per OECD 301D, Closed Bottle Test

Section 13: DISPOSAL CONSIDERATIONS

Appropriate Method for Disposal:

Unused Product: *Dilute with water to use concentration and dispose by sanitary sewer.
Used Product: *This product can enter into clarifiers and oil/water separators. Used product may be hazardous depending on the cleaning application and resulting contaminants.
Empty Containers: *Triple-rinse with water and offer for recycling if available in your area. Otherwise, dispose as non-hazardous waste.

*Dispose of used or unused product, and empty containers in accordance with the local, State, Provincial, and Federal regulations for your location. Never dispose of used degreasing rinsates into lakes, streams, and open bodies of water or storm drains.

Section 14: TRANSPORT INFORMATION

U.S. Department of Transportation (DOT) / Canadian TDG: Not Regulated

IMO / IDMG: Not classified as Dangerous
ICAO/ IATA: Not classified as Dangerous
ADR/RID: Not classified as Dangerous

U.N. Number	Not Required	Proper Shipping Name:	Detergent Solution
Hazard Class:	Non-Hazardous	Marine Pollutant:	No

Section 15: REGULATORY INFORMATIONAll components are listed on: EINECS, TSCA, DSL and AICS Inventory.No components listed under: Clean Air Act Section 112; Clean Water Act 307 & 311SARA Title III 2-butoxyethanol is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 as Category N230 – Certain Glycol Ethers.RCRA Status: Not a hazardous waste CERCLA Status : No components listedState Right To Know Lists

2-butoxyethanol

Illinois, Massachusetts, New Jersey, Pennsylvania, Rhode Island

WHMIS Classification – Category D, subcategory 2B, eye irritantName Toxic Substances List – Schedule 1 – CEPA
(Canadian Environmental Protection Act)

NPRI Inventory

2-butoxyethanol

Yes

No

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by Canada's Controlled Products Regulation.

Section 16: OTHER INFORMATION

Questions about the information found on this MSDS should be directed to:

SUNSHINE MAKERS, INC. – TECHNICAL DEPARTMENT

15922 Pacific Coast Hwy. Huntington Beach, CA 92649

Phone: 800/228-0709 [8am-5pm Pacific time, Mon-Fri] *Fax:* 562/592-3830 *Email:* infoweb@simplegreen.com**CAGE CODE 1Z575****GSA/FSS - CONTRACT NO. GS-07F-0065J****Scrubbing Pad GSA/BPA - CONTRACT NO. GS-07F-BSIMP****National Stock Numbers & Industrial Part Numbers:**

Simple Green	Part Number	NSN	Size
	13012	7930-01-342-5315	24 oz spray (12/case)
	13005	7930-01-306-8369	1 Gallon (6/case)
	13006	7930-01-342-5316	5 Gallon
	13016	7930-01-342-5317	15 Gallon
	13008	7930-01-342-4145	55 Gallon
	13103	N/A	2oz samples
	13225	N/A	2.5 Gallon
	13275	N/A	275 Gallon tote
	48049	N/A	1 Gallon Conc. w/ 32oz dilution
Scrubbing Pad	10224	7930-01-346-9148	Each (24/case)

Retail Numbers:

Part Number	Size
13002	16 oz Trigger (12/case)
13005	1 Gallon (6/case)
13013	24 oz Trigger (12/case)
13014	67 oz / 2 L (6/case)
13033	32 oz Trigger (12/case)
80007	Tier display holding 13005 (36/Tier)

*part number is for both industrial and retail*****International Part Numbers May Differ.****DISCLAIMER:** The information provided with this MSDS is furnished in good faith and without warranty of any kind. Personnel handling this material must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of this material and the safety and health of employees and customers. Sunshine Makers, Inc. assumes no additional liability or responsibility resulting from the use of, or reliance on this information.

APPENDIX C

PetroFLAG Soil Screening Results



Petro Flag Analysis

Project No.: <u>E118</u> Client: <u>GE Industrial Solutions</u> Site: <u>San German</u> <u>Temp 26.2 °C</u>					Date: <u>2/01/17</u> <u>TS Jdy 2</u> Activity: <u>Removal of underground diesel piping system</u> <u>Petro Flag</u> <u>Serial No: 17702964</u> <u>Dates 9-20-2006</u>		Page <u>1</u> of <u>8</u>
Sample ID	Date	Time	PID VOC (PPM)	Grams of Sample (Weight)	Result PPM	High Contaminant Sample Extract Fresh Soil Sample of 1 Gram (Multiply the Result by 10)	
<u>BLK</u>	<u>2/01/17</u>	<u>1240</u>	<u>—</u>	<u>—</u>	<u>BLK Extraction Solution Methanol Sol'n 0</u>	<u>N/A</u>	
<u>STD 1000</u>	<u>2/01/17</u>	<u>1240</u>	<u>—</u>	<u>—</u>	<u>1,000</u>	<u>N/A</u>	
<u>GEPL-1</u>	<u>2/01/17</u>	<u>1033</u>	<u>0</u>	<u>10g</u>	<u>151</u>	<u>Point 1 N/A</u>	
<u>GEPL-2</u>	<u>2/01/17</u>	<u>1038</u>	<u>0</u>	<u>10g</u>	<u>148</u>	<u>Point 2 N/A</u>	
<u>GEPL-3</u>	<u>2/01/17</u>	<u>1043</u>	<u>0</u>	<u>10g</u>	<u>43</u>	<u>Point 3 N/A</u>	
<u>GEPL-4</u>	<u>2/01/17</u>	<u>1048</u>	<u>0</u>	<u>10g</u>	<u>392</u>	<u>Point 4 N/A</u>	
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	

Matrix
 Water
 Soil
 Wipe
 Air
 Tissue

Code
 DW or GW
 S
 WP
 AR
 TS

Sample Type
 G=Grab
 C=Composite

Project No.: E118

Client: GE Industrial Solutions

Site: San German

Date: 02/10/17

Bldg 2

Activity: Removal of underground diesel piping system

 Page 2 of 8

Temp: 25.5 °C

Sample ID	Date	Time	PID VOC (PPM)	Grams of Sample (Weight)	Result PPM	High Contaminant Sample Extract Fresh Soil Sample of 1 Gram (Multiply the Result by 10)
BIK	02/10/17	1101	—	—	BIK Extraction Solution Hexanah Sol'n = 0	N/A
STD 1000	02/10/17	1101	—	—	1,000	N/A
GERL-5	02/09/17	1320	118.6	10 g	864	Punto 4 Debajo del Taberno
GERL-6	02/10/17	707	131.2	10 g	144	Punto 1 6" Debajo de la tubería 6"
GERL-7	02/10/17	730	348.5	10 g	41	Punto 2 6" Debajo de la tubería 6"
GERL-8	02/18/17	746	945	10 g	125	Punto 4 0-3" Debajo de la tubería 0" - 3"
GERL-8	02/18/17	746	59.7	10 g	232	Punto 4 3"-6" Debajo de la tubería 3" - 6"

 Matrix
 Water
 Soil
 Wipe
 Air
 Tissue

 Code
 DW or GW
 S
 WP
 AR
 TS

 Sample Type
 G=Grab
 C=Composite

Project No.: E118 Client: GE Industrial Solutions Site: San German Time 23.2	Date: 02/14/17 Bldg 2 Activity: Removal of underground diesel piping system <div style="text-align: right;">Page <u>3</u> of <u>8</u></div>
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Sample ID	Date	Time	PID VOC (PPM)	Grams of Sample (Weight)	Result PPM	High Contaminant Sample Extract Fresh Soil Sample of 1 Gram (Multiply the Result by 10)
BLK	02/14/17	756	N/A	N/A	DIK Extraction Solution Methanol Sol'n	N/A
STD 1000	02/14/17	756	N/A	N/A	1000	N/A
GERL-9	02/14/17	745	0	10	336	Muestra tomada debajo de las Unia 1+2 Panto 9
GERL-10	02/14/17	748	0	10	91	Muestra tomada debajo de las Unia 1+2 P. 6
GERL-11	02/14/17	1235	31.7	10	210	Muestra tomada debajo de la bubena 1+2 Panto 7

Matrix
Water
Soil
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Tissue

Code
DW or GW
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WP
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TS

Sample Type
G=Grab
C=Composite

Petro Flag Analysis

Project No.: E118

Client: GE Industrial Solutions

Date: 02/17/17
20

Activity: Removal of underground diesel piping system

Site: San German

Bldg 1

Parking Area from TK 5000gpl Diesel

Temp = 24 to 25.3

Page 4 of 8

Sample ID	Date	Time	PID VOC (PPM)	Grams of Sample (Weight)	Result PPM	High Contaminant Sample Extract Fresh Soil Sample of 1 Gram (Multiply the Result by 10)
B/K	02/20/17	929	N/A	N/A	B/K Extraction Solution Methanol Solvent 02/20/17 390	N/A
STD 1000	02/20/17	929	N/A	N/A	1,000	N/A
GERL- 12	02/20/17	824	0	10	452	Punto 8 debajo de la línea area del cado.
GERL- 13	02/20/17	830	0	10	185	Punto 7 1/2 debajo de la línea entre el extremo del 8 y 7
GERL- 14	02/20/17	835	0	10	1037	Punto 7 debajo de la línea
GERL- 15	02/20/17	1351	0	10	42	Punto 8 a 6" de profundidad
GERL- 16	02/20/17	1350	0	10	28	Punto 7 1/2 a 6" de profundidad
GERL- 17	02/20/17	1310	0	10	115	Punto 7 a 6" de profundidad

Matrix
Water
Soil
Wipe
Air
Tissue

Code
DW or GW
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AR
TS

Sample Type
G=Grab
C=Composite

Project No.: E118 Client: GE Industrial Solutions Site: San German	Date: 02/21/17 Activity: Removal of underground diesel piping system <div style="text-align: right;">Page <u>5</u> of <u>8</u></div> <div style="margin-top: 10px;"><i>Temp: 33.1</i></div>
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Sample ID	Date	Time	PID VOC (PPM)	Grams of Sample (Weight)	Result PPM	High Contaminant Sample Extract Fresh Soil Sample of 1 Gram (Multiply the Result by 10)
BIK	02/21/17	1309	N/A	N/A	BIK Extraction Solution Methanol 0	N/A
STD 1000	02/21/17	1309	N/A	N/A	1000	N/A
GERL-18	02/21/17	1029	0	10	109	Punto #6 debajo de la linea
GERL-19	02/21/17	1034	0	10	141	Punto 7 1/2 debajo de la tubería 6" debajo
GERL-20	02/21/17	1304	0	10	308	Area lado del generador de emergencia
GERL-21	02/21/17	1305	0	10	608	

Matrix
Water
Soil
Wipe
Air
Tissue

Code
DW or GW
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WP
AR
TS

Sample Type
G=Grab
C=Composite

Project No.: E118 Client: GE Industrial Solutions Site: San German Temp = 27.4 °C	Date: 02/27/17 Activity: Removal of underground diesel piping system <div style="text-align: right;">Page <u>6</u> of <u>8</u></div>
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Sample ID	Date	Time	PID VOC (PPM)	Grams of Sample (Weight)	Result PPM	High Contaminant Sample Extract Fresh Soil Sample of 1 Gram (Multiply the Result by 10)
B1K	2/27/17	944	N/A	N/A	B1K Extraction Solution Method 0	N/A
STD 1000	2/27/17	944	N/A	N/A	1000	N/A
GEPL-22	02/27/17	822	2.0	10	58	6" debajo del punto 7 1/2
GEPL-23	02/27/17	828	10.0	10	✓ 820	Punto 4 debajo de la tubería
GEPL-24	02/27/17	845	4.8	10	82	Punto 3 debajo de la tubería
GEPL-25	02/27/17	859	26.1	10	✓ 705	Punto 1 1/2
GEPL-26	02/27/17	852	15.5	10	✓ 192	Punto 0-1 6"

Matrix
Water
Soil
Wipe
Air
Tissue

Code
DW or GW
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WP
AR
TS

Sample Type
G=Grab
C=Composite

Petro Flag Analysis

Project No.: E118 Client: GE Industrial Solutions Site: San German Temp = 21.7°C					Date: 2/28/17 Activity: Removal of underground diesel piping system Page 7 of 8	
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Sample ID	Date	Time	PID VOC (PPM)	Grams of Sample (Weight)	Result PPM	High Contaminant Sample Extract Fresh Soil Sample of 1 Gram (Multiply the Result by 10)
B1K	02/28/17	743	N/A	N/A	B1K Station Solution Method 0	N/A
STD 1000	02/28/17	743	N/A	N/A	1,000	N/A
GERL-27	02/28/17	725	0	10	72	Punto 4 6" debajo del tubo N/A
GERL-28	2/28/17	817	0	10	89 <i>done</i>	Punto 3 6" debajo del tubo
GERL-29	2/28/17	954	0	10	284	Punto 5 1/2 6" debajo del tubo
GERL-30	—	—	—	—	—	—

Matrix
 Water
 Soil
 Wipe
 Air
 Tissue

Code
 DW or GW
 S
 WP
 AR
 TS

Sample Type
 G=Grab
 C=Composite

Project No.: E118					Date: 03/01/17	
Client: GE Industrial Solutions					Activity: Removal of underground diesel piping system	
Site: San German					Page 8 of 8	
Temp: 27.4 °C					MSA Solim A3-7438	

Sample ID	Date	Time	PID VOC (PPM)	Grams of Sample (Weight)	Result PPM	High Contaminant Sample Extract Fresh Soil Sample of 1 Gram (Multiply the Result by 10)
B1/C	03/01/17	1304	N/A	N/A	B1/C Struction Solution Methanol 0	N/A
STD 1000	03/01/17	1304	N/A	N/A	1000	N/A
GEPL-30	03/01/17	1040	10	10	42	N/A
B1/C ^{Temp} 25.3	03/08/17	849	N/A	N/A	B1/C Struction Solution Methanol 0	N/A
STD 1000	03/08/17	849	N/A	N/A	1000	N/A
GEPL-31	03/08/17	915	0	10	2308	Punto 1 después de 6"
GEPL-32	03/08/17	956	0	10	31	Punto 1 después de 1 1/2 3' 10"
GEPL-33	03/08/17	1055		10	60	Muestra del lateral izquierda
GEPL-34	03/08/17	1058		10	63	Muestra del lateral Derecho

Matrix
Water
Soil
Wipe
Air
Tissue

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TS

Sample Type
G=Grab
C=Composite

APPENDIX D

Manifest 57400-17N11





ALLIED WASTE SERVICES

A REPUBLIC SERVICES COMPANY

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

57400

I. GENERATOR (Generator completes Ia-r)

If waste is asbestos waste, complete Sections I, II, III and IV

If waste is **NOT** asbestos waste, complete Sections I, II and III

a. Generator's US EPA ID Number		b. Manifest Document Number 17N11		c. Page 1 of 1	
d. Generator's Name and Location: GE Industrial Solution Calle B El Retiro Industrial Park San German PR 00683 f. Phone: 787-264-5601			e. Generator's Mailing Address: Calle B El Retiro Industrial Park San German PR 00683 g. Phone: 787-264-5601		
If owner of the generating facility differs from the generator, provide:					
h. Owner's Name:			i. Owner's Phone No.:		
j. Waste Profile #	k. Exp. Date	l. Waste Shipping Name and Description	m. Containers No. Type	n. Total Quantity	o. Unit Wt/Vol
4217174713	6/30/2017	Excavated Soil	001 CM	20	yds

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if this waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR 268 and is no longer a hazardous waste as defined by 40 CFR 261.

p. Generator Authorized Agent Name (Print) Jedelly Claudio Mariscal		q. Signature <i>[Signature]</i>	r. Date April, 12 2017
--	--	------------------------------------	---------------------------

II. TRANSPORTER (Generator completes IIa-b and Transporter completes IIc-e)

a. Transporter's Name and Address: Central Waste Services Im - CW 112	
b. Phone: 787-846-1010	
c. Driver Name (Print) Isabelino Serrano	d. Signature <i>[Signature]</i>
	e. Date 12/16/17

III. DESTINATION (Generator complete IIIa-c and Destination Site completes IIId-g)

a. Disposal Facility and Site Address: PONCE LANDFILL AVE. BARAMAYA #500 PONCE, P. R. 00732	b. US EPA Number IDE-58-0008	c. Discrepancy Indication Space: 5/13
I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.		
e. Name of Authorized Agent (Print) <i>[Signature]</i>	f. Signature <i>[Signature]</i>	g. Date 4/12/17

IV. ASBESTOS (Generator completes IVa-f and Operator complete IVg-i)

a. Operator's Name and Address:	c. Responsible Agency Name and Address:
b. Phone:	d. Phone:
e. Special Handling Instructions and Additional Information:	
f. <input type="checkbox"/> Friable <input type="checkbox"/> Non-Friable <input type="checkbox"/> Both % Friable % Non-Friable	
OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.	
g. Operator's Name and Title (Print)	h. Signature
i. Date	

*Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation or both

GE_SG001310



Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

Waste Profile # 4217174713		Expiration Date 6/30/2017	
I. Decision Request:	<input checked="" type="checkbox"/> Initial <input type="checkbox"/> Recertification <input type="checkbox"/> Change		
Disposal Facility: 4217 - Ponce Landfill			
Generator Name: GE Industrial Solution			
Generator Site Address: Road B El Retiro Industrial Park			
City: San German	County:	State: PR	Zip:
Name of Waste: Excavated Soil			
Estimated Annual Volume: 20 Cubic Yards			

II. Special Waste Department Decision: ☒ Approved ☐ Rejected

Management Method(s): ☒ Landfill ☐ Solidification ☐ Bioremediation ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☒ No

If yes, which one? _____

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☒ Not Applicable

Precautions, Conditions or Limitations on Approval

Special Waste Analyst Signature: _____
Date: 3/28/2017

Name (Printed): Joseph Sorokach

III. Facility Decision: ☒ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: _____
Date: 3/28/2017

Name (Printed): Wesley J. [Signature]

GE_SG001311

**SPECIAL WASTE PROFILE**

Page 1 of 2

Requested Disposal Facility: 4217 Ponce LF PR

Waste Profile #

4217 17 4713

Saveable fill-in form. Restricted printing until all required (yellow) fields are completed.

I. Generator Information

Sales Rep #: 558

Generator Name: GE Industrial Solution			
Generator Site Address: Road B El Retiro Industrial Park			
City: San German	County: San German	State: Puerto Rico	Zip: 00683
State ID/Reg No:	State Approval/Waste Code: (if applicable)		NAICS #:
Generator Mailing Address (if different): Road B El Retiro Industrial Park			
City: San German	County: Vega Baja	State: Puerto Rico	Zip: 683
Generator Contact Name: Jedelly Claudio		Email: jedelly.claudio.manguai@ge.com	
Phone Number: (787) 270-7007	Ext:	Fax Number:	

II. Billing Information

Bill To: ARCADIS Caribe P.S.C.		Contact Name: Abner Hernández	
Billing Address: City View Plaza Torre 1 Suite 401 Road 165 Km 1.2		Email: abner.hernandez@arcadis.com	
City: Guaynabo	State: PR	Zip: 00968	Phone: (787) 523-8760

III. Waste Stream Information

Name of Waste: Excavated soil	
Process Generating Waste: Soil from excavation of diesel pipelines	
Type of Waste:	<input type="checkbox"/> INDUSTRIAL PROCESS WASTE <input checked="" type="checkbox"/> POLLUTION CONTROL WASTE
Physical State:	<input checked="" type="checkbox"/> SOLID <input type="checkbox"/> SEMI-SOLID <input type="checkbox"/> POWDER <input type="checkbox"/> LIQUID
Method of Shipment:	<input checked="" type="checkbox"/> BULK <input type="checkbox"/> DRUM <input type="checkbox"/> BAGGED <input type="checkbox"/> OTHER:
Estimated Annual Volume:	20 Cubic Yards
Frequency:	<input checked="" type="checkbox"/> ONE TIME <input type="checkbox"/> ONGOING
Disposal Consideration:	<input checked="" type="checkbox"/> LANDFILL <input type="checkbox"/> SOLIDIFICATION <input type="checkbox"/> BIOREMEDIATION

IV. Representative Sample Certification☐ NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?		<input checked="" type="checkbox"/> YES or <input type="checkbox"/> NO
Type of Sample: <input checked="" type="checkbox"/> COMPOSITE SAMPLE <input type="checkbox"/> GRAB SAMPLE		
Sample Date: 3/14/2017		
GESG-SLD Pace Lab ID 2051688001		

**SPECIAL WASTE PROFILE**

Page 2 of 2

Waste Profile #

4217 17 4713

V. Physical Characteristics of Waste

Characteristic Components		% by Weight (range)
1. soil		98%
2. diesel oil		2%
3.		
4.		
5.		
Color brown	Odor (describe) mild	Does Waste Contain Free Liquids? <input type="checkbox"/> YES or <input checked="" type="checkbox"/> NO
		% Solids 98
		pH: 8.0
		Flash Point not ignitable

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Chain of Custody and Required Parameters Provided for this Profile

Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm)[reference 40 CFR 261.23(a)(5)]?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCDD), or any other dioxin as defined in 40 CFR 261.31?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste a reactive or heat generating waste?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does the waste contain sulfur or sulfur by-products?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste generated at a Federal Superfund Clean Up Site?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste from a TSD facility, TSD like facility or consolidator?	<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services Inc.

Jedelly Claudio/EHS Manager VB/VA

GE Industrial of Puerto Rico

Authorized Representative Name And Title (Type or Print)

Company Name

Authorized Representative Signature

Date

March 23, 2017

Efrain Calderon
BBL Caribe Engineering P.S.C.
48 City View Plaza1, Suite 401
Road 16, Km. 1.2
Guaynabo, PR 00968

RE: Project: GE SAN GERMAN
Pace Project No.: 2051688

Dear Efrain Calderon:

Enclosed are the analytical results for sample(s) received by the laboratory on March 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Juan Redondo
juan.redondo@pacelabs.com
(787)720-0319
Project Manager

Enclosures

cc: Sharon Colon
Abner Hernandez
Marianela Mercado-Burgos



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: GE SAN GERMAN
Pace Project No.: 2051688

New Orleans Certification IDs

California Env. Lab Accreditation Program Branch:
11277CA

Florida Department of Health (NELAC): E87595

Illinois Environmental Protection Agency: 0025721

Kansas Department of Health and Environment (NELAC):
E-10266

Louisiana Dept. of Environmental Quality (NELAC/LELAP):
02006

Pennsylvania Dept. of Env Protection (NELAC): 68-04202

Texas Commission on Env. Quality (NELAC):

T104704405-09-TX

U.S. Dept. of Agriculture Foreign Soil Import: P330-10-
00119

Commonwealth of Virginia (TNI): 480246

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: GE SAN GERMAN
Pace Project No.: 2051688

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2051688001	GESG-SLD	Solid	03/14/17 10:15	03/14/17 15:12

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: GE SAN GERMAN
Pace Project No.: 2051688

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2051688001	GESG-SLD	EPA 6010	MHB1	7	PASI-N
		EPA 7470	NRB	1	PASI-N
		EPA 8270	GEJ	18	PASI-N
		EPA 8260	JRP	13	PASI-N
		SW-846 7.1.2	CN	5	PASI-N
		SW-846 7.3.4.2	LJL	1	PASI-N
		EPA 9045	CN	1	PASI-N
		SW-846 7.3.3.2	CN	1	PASI-N

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: GE SAN GERMAN
Pace Project No.: 2051688

Method: EPA 6010
Description: 6010 Metals, TCLP
Client: BBL Caribe / Arcadis PR
Date: March 23, 2017

General Information:

1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: GE SAN GERMAN
Pace Project No.: 2051688

Method: EPA 7470
Description: 7470 Mercury, TCLP
Client: BBL Caribe / Arcadis PR
Date: March 23, 2017

General Information:

1 sample was analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 76788

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 2051688001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 324409)
 - Mercury
- MSD (Lab ID: 324410)
 - Mercury

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: GE SAN GERMAN
Pace Project No.: 2051688

Method: EPA 8270
Description: 8270 MSSV TCLP
Client: BBL Caribe / Arcadis PR
Date: March 23, 2017

General Information:

1 sample was analyzed for EPA 8270. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3535 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: GE SAN GERMAN
Pace Project No.: 2051688

Method: EPA 8260
Description: 8260 MSV TCLP
Client: BBL Caribe / Arcadis PR
Date: March 23, 2017

General Information:

1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: GE SAN GERMAN
Pace Project No.: 2051688

Method: SW-846 7.1.2
Description: Ignitability of Solids
Client: BBL Caribe / Arcadis PR
Date: March 23, 2017

General Information:

1 sample was analyzed for SW-846 7.1.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: GE SAN GERMAN
Pace Project No.: 2051688

Method: SW-846 7.3.4.2
Description: 734S Reactive Sulfide
Client: BBL Caribe / Arcadis PR
Date: March 23, 2017

General Information:

1 sample was analyzed for SW-846 7.3.4.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with SW-846 7.3.4.2 with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: GE SAN GERMAN
Pace Project No.: 2051688

Method: EPA 9045
Description: 9045 pH Soil
Client: BBL Caribe / Arcadis PR
Date: March 23, 2017

General Information:

1 sample was analyzed for EPA 9045. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: GE SAN GERMAN
Pace Project No.: 2051688

Method: SW-846 7.3.3.2
Description: 733C S Reactive Cyanide
Client: BBL Caribe / Arcadis PR
Date: March 23, 2017

General Information:

1 sample was analyzed for SW-846 7.3.3.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with SW-846 7.3.3.2 with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

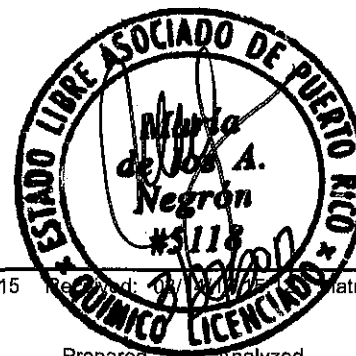
Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS



Project: GE SAN GERMAN
Pace Project No.: 2051688

Sample: GESG-SLD Lab ID: 2051688001 Collected: 03/14/17 10:15 Reported: 03/21/17 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 Metals, TCLP								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Leachate Method/Date: EPA 1311; 03/17/17 14:35								
Arsenic	ND	mg/L	0.20	1	03/21/17 06:41	03/21/17 14:03	7440-38-2	
Barium	ND	mg/L	2.0	1	03/21/17 06:41	03/21/17 14:03	7440-39-3	
Cadmium	ND	mg/L	0.10	1	03/21/17 06:41	03/21/17 14:03	7440-43-9	
Chromium	ND	mg/L	0.20	1	03/21/17 06:41	03/21/17 14:03	7440-47-3	
Lead	ND	mg/L	0.20	1	03/21/17 06:41	03/21/17 14:03	7439-92-1	
Selenium	ND	mg/L	0.20	1	03/21/17 06:41	03/21/17 14:03	7782-49-2	
Silver	ND	mg/L	0.20	1	03/21/17 06:41	03/21/17 14:03	7440-22-4	
7470 Mercury, TCLP								
Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Leachate Method/Date: EPA 1311; 03/17/17 14:35								
Mercury	ND	mg/L	0.00020	1	03/21/17 06:52	03/21/17 14:10	7439-97-6	M1
8270 MSSV TCLP								
Analytical Method: EPA 8270 Preparation Method: EPA 3535								
Leachate Method/Date: EPA 1311; 03/17/17 14:35								
1,4-Dichlorobenzene	ND	mg/L	0.10	1	03/20/17 10:22	03/20/17 21:13	106-46-7	
2,4-Dinitrotoluene	ND	mg/L	0.10	1	03/20/17 10:22	03/20/17 21:13	121-14-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.10	1	03/20/17 10:22	03/20/17 21:13	87-68-3	
Hexachlorobenzene	ND	mg/L	0.10	1	03/20/17 10:22	03/20/17 21:13	118-74-1	
Hexachloroethane	ND	mg/L	0.10	1	03/20/17 10:22	03/20/17 21:13	67-72-1	
2-Methylphenol(o-Cresol)	ND	mg/L	0.10	1	03/20/17 10:22	03/20/17 21:13	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	mg/L	0.10	1	03/20/17 10:22	03/20/17 21:13		
Nitrobenzene	ND	mg/L	0.10	1	03/20/17 10:22	03/20/17 21:13	98-95-3	
Pentachlorophenol	ND	mg/L	0.25	1	03/20/17 10:22	03/20/17 21:13	87-86-5	
Pyridine	ND	mg/L	0.10	1	03/20/17 10:22	03/20/17 21:13	110-86-1	
2,4,5-Trichlorophenol	ND	mg/L	0.25	1	03/20/17 10:22	03/20/17 21:13	95-95-4	
2,4,6-Trichlorophenol	ND	mg/L	0.10	1	03/20/17 10:22	03/20/17 21:13	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	78	%	33-120	1	03/20/17 10:22	03/20/17 21:13	4165-60-0	
2-Fluorobiphenyl (S)	77	%	34-117	1	03/20/17 10:22	03/20/17 21:13	321-60-8	
Terphenyl-d14 (S)	97	%	24-133	1	03/20/17 10:22	03/20/17 21:13	1718-51-0	
Phenol-d6 (S)	50	%	15-134	1	03/20/17 10:22	03/20/17 21:13	13127-88-3	
2-Fluorophenol (S)	53	%	10-118	1	03/20/17 10:22	03/20/17 21:13	367-12-4	
2,4,6-Tribromophenol (S)	80	%	25-145	1	03/20/17 10:22	03/20/17 21:13	118-79-6	
8260 MSV TCLP								
Analytical Method: EPA 8260 Leachate Method/Date: EPA 1311; 03/17/17 14:35								
Benzene	ND	mg/L	0.10	20		03/21/17 12:18	71-43-2	
2-Butanone (MEK)	ND	mg/L	0.20	20		03/21/17 12:18	78-93-3	
Carbon tetrachloride	ND	mg/L	0.10	20		03/21/17 12:18	56-23-5	
Chlorobenzene	ND	mg/L	0.10	20		03/21/17 12:18	108-90-7	
Chloroform	ND	mg/L	0.10	20		03/21/17 12:18	67-66-3	
1,2-Dichloroethane	ND	mg/L	0.10	20		03/21/17 12:18	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.10	20		03/21/17 12:18	75-35-4	
Tetrachloroethene	ND	mg/L	0.10	20		03/21/17 12:18	127-18-4	
Trichloroethene	ND	mg/L	0.10	20		03/21/17 12:18	79-01-6	
Vinyl chloride	ND	mg/L	0.10	20		03/21/17 12:18	75-01-4	

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Date: 03/23/2017 01:18 PM

Page 13 of 30

GE_SG001326

ANALYTICAL RESULTS

Project: GE SAN GERMAN
Pace Project No.: 2051688

Sample: GESG-SLD Lab ID: 2051688001 Collected: 03/14/17 10:15 Received: 03/14/17 15:12 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV TCLP								
Analytical Method: EPA 8260 Leachate Method/Date: EPA 1311; 03/17/17 14:35								
Surrogates								
Toluene-d8 (S)	99	%.	70-130	20		03/21/17 12:18	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	62-134	20		03/21/17 12:18	460-00-4	
Dibromofluoromethane (S)	101	%.	64-130	20		03/21/17 12:18	1868-53-7	
Ignitability of Solids								
Analytical Method: SW-846 7.1.2								
Ignitability	Not Ignitable			1		03/21/17 14:57		
Ignites by flame	N/A			1		03/21/17 14:57		
Ignites spontaneously	No			1		03/21/17 14:57		
Ignites when agitated	No			1		03/21/17 14:57		
Ignites with moisture	No			1		03/21/17 14:57		
734S Reactive Sulfide								
Analytical Method: SW-846 7.3.4.2 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	50.0	1	03/16/17 11:30	03/16/17 15:20		
9045 pH Soil								
Analytical Method: EPA 9045								
pH at 25 Degrees C	8.0	Std. Units	0.010	1		03/21/17 14:21		
733C S Reactive Cyanide								
Analytical Method: SW-846 7.3.3.2 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	25.0	1	03/16/17 11:30	03/16/17 16:38		



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Date: 03/23/2017 01:18 PM

Page 14 of 30

GE_SG001327

QUALITY CONTROL DATA

Project: GE SAN GERMAN
Pace Project No.: 2051688

QC Batch: 76788 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury TCLP
Associated Lab Samples: 2051688001

METHOD BLANK: 323849 Matrix: Water
Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	03/21/17 14:03	

METHOD BLANK: 324407 Matrix: Water
Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	03/21/17 13:59	

METHOD BLANK: 324449 Matrix: Water
Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	03/21/17 14:07	

METHOD BLANK: 323948 Matrix: Water
Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	03/21/17 14:05	

LABORATORY CONTROL SAMPLE: 324408

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.001	0.0010	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 324409 324410

Parameter	Units	2051688001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Mercury	mg/L	ND	.001	.001	0.0014	0.0014	142	144	75-125	1 20	M1

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Page 15 of 30

GE_SG001328

QUALITY CONTROL DATA

Project: GE SAN GERMAN
Pace Project No.: 2051688

QC Batch: 76787 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET TCLP
Associated Lab Samples: 2051688001

METHOD BLANK: 323849 Matrix: Water

Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.20	03/21/17 13:55	
Barium	mg/L	ND	2.0	03/21/17 13:55	
Cadmium	mg/L	ND	0.10	03/21/17 13:55	
Chromium	mg/L	ND	0.20	03/21/17 13:55	
Lead	mg/L	ND	0.20	03/21/17 13:55	
Selenium	mg/L	ND	0.20	03/21/17 13:55	
Silver	mg/L	ND	0.20	03/21/17 13:55	

METHOD BLANK: 324403 Matrix: Water

Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.20	03/21/17 13:40	
Barium	mg/L	ND	2.0	03/21/17 13:40	
Cadmium	mg/L	ND	0.10	03/21/17 13:40	
Chromium	mg/L	ND	0.20	03/21/17 13:40	
Lead	mg/L	ND	0.20	03/21/17 13:40	
Selenium	mg/L	ND	0.20	03/21/17 13:40	
Silver	mg/L	ND	0.20	03/21/17 13:40	

METHOD BLANK: 324449 Matrix: Water

Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.20	03/21/17 15:05	
Barium	mg/L	ND	2.0	03/21/17 15:05	
Cadmium	mg/L	ND	0.10	03/21/17 15:05	
Chromium	mg/L	ND	0.20	03/21/17 15:05	
Lead	mg/L	ND	0.20	03/21/17 15:05	
Selenium	mg/L	ND	0.20	03/21/17 15:05	
Silver	mg/L	ND	0.20	03/21/17 15:05	

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Date: 03/23/2017 01:18 PM

Page 16 of 30

GE_SG001329

QUALITY CONTROL DATA

Project: GE SAN GERMAN
Pace Project No.: 2051688

METHOD BLANK: 323948

Matrix: Water

Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.20	03/21/17 13:59	
Barium	mg/L	ND	2.0	03/21/17 13:59	
Cadmium	mg/L	ND	0.10	03/21/17 13:59	
Chromium	mg/L	ND	0.20	03/21/17 13:59	
Lead	mg/L	ND	0.20	03/21/17 13:59	
Selenium	mg/L	ND	0.20	03/21/17 13:59	
Silver	mg/L	ND	0.20	03/21/17 13:59	

LABORATORY CONTROL SAMPLE: 324404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	2	2.1	103	84-117	
Barium	mg/L	2	2.2	109	85-118	
Cadmium	mg/L	2	2.1	103	85-115	
Chromium	mg/L	2	2.1	103	83-117	
Lead	mg/L	2	2.1	103	84-118	
Selenium	mg/L	2	2.2	108	85-116	
Silver	mg/L	1	1.0	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 324405 324406

Parameter	Units	2051688001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	2	2	2.0	2.0	100	98	80-120	2	20	
Barium	mg/L	ND	2	2	3.5	3.4	104	98	80-120	4	20	
Cadmium	mg/L	ND	2	2	1.8	1.8	89	87	80-120	2	20	
Chromium	mg/L	ND	2	2	2.0	1.9	99	97	80-120	2	20	
Lead	mg/L	ND	2	2	1.8	1.7	88	86	80-120	2	20	
Selenium	mg/L	ND	2	2	2.1	2.0	104	101	80-120	2	20	
Silver	mg/L	ND	1	1	1.1	1.1	112	108	80-120	3	20	

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Date: 03/23/2017 01:18 PM

Page 17 of 30

GE_SG001330

QUALITY CONTROL DATA

Project: GE SAN GERMAN
Pace Project No.: 2051688

QC Batch: 76866 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV TCLP
Associated Lab Samples: 2051688001

METHOD BLANK: 323850 Matrix: Water

Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethene	mg/L	ND	0.10	03/21/17 11:25	
1,2-Dichloroethane	mg/L	ND	0.10	03/21/17 11:25	
2-Butanone (MEK)	mg/L	ND	0.20	03/21/17 11:25	
Benzene	mg/L	ND	0.10	03/21/17 11:25	
Carbon tetrachloride	mg/L	ND	0.10	03/21/17 11:25	
Chlorobenzene	mg/L	ND	0.10	03/21/17 11:25	
Chloroform	mg/L	ND	0.10	03/21/17 11:25	
Tetrachloroethene	mg/L	ND	0.10	03/21/17 11:25	
Trichloroethene	mg/L	ND	0.10	03/21/17 11:25	
Vinyl chloride	mg/L	ND	0.10	03/21/17 11:25	
4-Bromofluorobenzene (S)	%	98	62-134	03/21/17 11:25	
Dibromofluoromethane (S)	%	100	64-130	03/21/17 11:25	
Toluene-d8 (S)	%	100	70-130	03/21/17 11:25	

METHOD BLANK: 324450 Matrix: Water

Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethene	mg/L	ND	0.10	03/21/17 12:00	
1,2-Dichloroethane	mg/L	ND	0.10	03/21/17 12:00	
2-Butanone (MEK)	mg/L	ND	0.20	03/21/17 12:00	
Benzene	mg/L	ND	0.10	03/21/17 12:00	
Carbon tetrachloride	mg/L	ND	0.10	03/21/17 12:00	
Chlorobenzene	mg/L	ND	0.10	03/21/17 12:00	
Chloroform	mg/L	ND	0.10	03/21/17 12:00	
Tetrachloroethene	mg/L	ND	0.10	03/21/17 12:00	
Trichloroethene	mg/L	ND	0.10	03/21/17 12:00	
Vinyl chloride	mg/L	ND	0.10	03/21/17 12:00	
4-Bromofluorobenzene (S)	%	97	62-134	03/21/17 12:00	
Dibromofluoromethane (S)	%	102	64-130	03/21/17 12:00	
Toluene-d8 (S)	%	101	70-130	03/21/17 12:00	

LABORATORY CONTROL SAMPLE: 324681

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	mg/L	.4	0.38	95	50-151	
1,2-Dichloroethane	mg/L	.4	0.39	98	58-150	
2-Butanone (MEK)	mg/L	.4	0.47	118	18-173	

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Page 18 of 30

GE_SG001331

QUALITY CONTROL DATA

Project: GE SAN GERMAN
Pace Project No.: 2051688

LABORATORY CONTROL SAMPLE: 324681

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	mg/L	.4	0.41	102	68-129	
Carbon tetrachloride	mg/L	.4	0.36	89	56-146	
Chlorobenzene	mg/L	.4	0.41	101	74-131	
Chloroform	mg/L	.4	0.40	100	71-132	
Tetrachloroethene	mg/L	.4	0.38	94	57-151	
Trichloroethene	mg/L	.4	0.39	97	71-131	
Vinyl chloride	mg/L	.4	0.38	95	42-148	
4-Bromofluorobenzene (S)	%			99	62-134	
Dibromofluoromethane (S)	%			100	64-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 324682 324683

Parameter	Units	2051688001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
1,1-Dichloroethene	mg/L	ND	.4	.4	0.37	0.37	93	92	40-163	2	20
1,2-Dichloroethane	mg/L	ND	.4	.4	0.41	0.40	103	99	57-155	4	20
2-Butanone (MEK)	mg/L	ND	.4	.4	0.48	0.44	121	111	14-184	8	20
Benzene	mg/L	ND	.4	.4	0.41	0.41	101	101	60-138	0	20
Carbon tetrachloride	mg/L	ND	.4	.4	0.36	0.37	90	92	51-151	2	20
Chlorobenzene	mg/L	ND	.4	.4	0.41	0.40	103	101	71-135	2	20
Chloroform	mg/L	ND	.4	.4	0.40	0.39	100	97	67-138	3	20
Tetrachloroethene	mg/L	ND	.4	.4	0.38	0.36	95	91	48-160	4	20
Trichloroethene	mg/L	ND	.4	.4	0.39	0.38	98	95	62-142	3	20
Vinyl chloride	mg/L	ND	.4	.4	0.38	0.36	94	90	35-153	4	20
4-Bromofluorobenzene (S)	%						98	98	62-134		
Dibromofluoromethane (S)	%						100	98	64-130		
Toluene-d8 (S)	%						100	100	70-130		

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REPORT OF LABORATORY ANALYSIS

Date: 03/23/2017 01:18 PM

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Page 19 of 30

GE_SG001332

QUALITY CONTROL DATA

Project: GE SAN GERMAN
Pace Project No.: 2051688

QC Batch: 76778 Analysis Method: EPA 8270
QC Batch Method: EPA 3535 Analysis Description: 8270 TCLP MSSV
Associated Lab Samples: 2051688001

METHOD BLANK: 323849 Matrix: Water
Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dichlorobenzene	mg/L	ND	0.10	03/20/17 16:29	
2,4,5-Trichlorophenol	mg/L	ND	0.25	03/20/17 16:29	
2,4,6-Trichlorophenol	mg/L	ND	0.10	03/20/17 16:29	
2,4-Dinitrotoluene	mg/L	ND	0.10	03/20/17 16:29	
2-Methylphenol(o-Cresol)	mg/L	ND	0.10	03/20/17 16:29	
3&4-Methylphenol(m&p Cresol)	mg/L	ND	0.10	03/20/17 16:29	
Hexachloro-1,3-butadiene	mg/L	ND	0.10	03/20/17 16:29	
Hexachlorobenzene	mg/L	ND	0.10	03/20/17 16:29	
Hexachloroethane	mg/L	ND	0.10	03/20/17 16:29	
Nitrobenzene	mg/L	ND	0.10	03/20/17 16:29	
Pentachlorophenol	mg/L	ND	0.25	03/20/17 16:29	
Pyridine	mg/L	ND	0.10	03/20/17 16:29	
2,4,6-Tribromophenol (S)	%	105	25-145	03/20/17 16:29	
2-Fluorobiphenyl (S)	%	96	34-117	03/20/17 16:29	
2-Fluorophenol (S)	%	59	10-118	03/20/17 16:29	
Nitrobenzene-d5 (S)	%	99	33-120	03/20/17 16:29	
Phenol-d6 (S)	%	55	15-134	03/20/17 16:29	
Terphenyl-d14 (S)	%	115	24-133	03/20/17 16:29	

METHOD BLANK: 323948 Matrix: Water
Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dichlorobenzene	mg/L	ND	0.10	03/20/17 16:55	
2,4,5-Trichlorophenol	mg/L	ND	0.25	03/20/17 16:55	
2,4,6-Trichlorophenol	mg/L	ND	0.10	03/20/17 16:55	
2,4-Dinitrotoluene	mg/L	ND	0.10	03/20/17 16:55	
2-Methylphenol(o-Cresol)	mg/L	ND	0.10	03/20/17 16:55	
3&4-Methylphenol(m&p Cresol)	mg/L	ND	0.10	03/20/17 16:55	
Hexachloro-1,3-butadiene	mg/L	ND	0.10	03/20/17 16:55	
Hexachlorobenzene	mg/L	ND	0.10	03/20/17 16:55	
Hexachloroethane	mg/L	ND	0.10	03/20/17 16:55	
Nitrobenzene	mg/L	ND	0.10	03/20/17 16:55	
Pentachlorophenol	mg/L	ND	0.25	03/20/17 16:55	
Pyridine	mg/L	ND	0.10	03/20/17 16:55	
2,4,6-Tribromophenol (S)	%	83	25-145	03/20/17 16:55	
2-Fluorobiphenyl (S)	%	82	34-117	03/20/17 16:55	
2-Fluorophenol (S)	%	46	10-118	03/20/17 16:55	
Nitrobenzene-d5 (S)	%	82	33-120	03/20/17 16:55	

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REPORT OF LABORATORY ANALYSIS

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Page 20 of 30

GE_SG001333

QUALITY CONTROL DATA

Project: GE SAN GERMAN
Pace Project No.: 2051688

METHOD BLANK: 323948
Associated Lab Samples: 2051688001

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenol-d6 (S)	%.	44	15-134	03/20/17 16:55	
Terphenyl-d14 (S)	%.	97	24-133	03/20/17 16:55	

LABORATORY CONTROL SAMPLE: 324364

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	mg/L	.5	0.38	77	45-110	
2,4,5-Trichlorophenol	mg/L	.5	0.50	101	44-110	
2,4,6-Trichlorophenol	mg/L	.5	0.51	102	43-110	
2,4-Dinitrotoluene	mg/L	.5	0.45	91	49-124	
2-Methylphenol(o-Cresol)	mg/L	.5	0.33	67	46-110	
3&4-Methylphenol(m&p Cresol)	mg/L	1	0.65	65	45-117	
Hexachloro-1,3-butadiene	mg/L	.5	0.48	96	34-110	
Hexachlorobenzene	mg/L	.5	0.48	96	52-115	
Hexachloroethane	mg/L	.5	0.39	79	43-110	
Nitrobenzene	mg/L	.5	0.46	92	41-112	
Pentachlorophenol	mg/L	.5	0.33	65	38-135	
Pyridine	mg/L	.5	0.33	67	24-118	
2,4,6-Tribromophenol (S)	%.			96	25-145	
2-Fluorobiphenyl (S)	%.			87	34-117	
2-Fluorophenol (S)	%.			50	10-118	
Nitrobenzene-d5 (S)	%.			93	33-120	
Phenol-d6 (S)	%.			48	15-134	
Terphenyl-d14 (S)	%.			109	24-133	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 324371 324372

Parameter	Units	2051843001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
1,4-Dichlorobenzene	mg/L	ND	.5	.5	0.33	0.34	66	68	35-110	2	20
2,4,5-Trichlorophenol	mg/L	ND	.5	.5	0.45	0.46	89	92	35-144	2	20
2,4,6-Trichlorophenol	mg/L	ND	.5	.5	0.44	0.46	89	92	33-140	4	20
2,4-Dinitrotoluene	mg/L	ND	.5	.5	0.39	0.41	78	81	33-128	4	20
2-Methylphenol(o-Cresol)	mg/L	ND	.5	.5	0.30	0.30	60	59	10-126	1	20
3&4-Methylphenol(m&p Cresol)	mg/L	ND	1	1	0.59	0.58	59	58	38-128	1	20
Hexachloro-1,3-butadiene	mg/L	ND	.5	.5	0.42	0.41	85	83	27-110	2	20
Hexachlorobenzene	mg/L	ND	.5	.5	0.41	0.41	82	83	40-111	1	20
Hexachloroethane	mg/L	ND	.5	.5	0.33	0.34	66	67	35-110	1	20
Nitrobenzene	mg/L	ND	.5	.5	0.40	0.41	80	81	29-118	1	20
Pentachlorophenol	mg/L	ND	.5	.5	0.29	0.30	58	60	24-168	3	20
Pyridine	mg/L	ND	.5	.5	0.30	0.31	60	62	40-112	2	20
2,4,6-Tribromophenol (S)	%.						86	84	25-145		

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Page 21 of 30

GE_SG001334

QUALITY CONTROL DATA

Project: GE SAN GERMAN

Pace Project No.: 2051688

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 324371 324372												
Parameter	Units	2051843001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
2-Fluorobiphenyl (S)	%.						77	77	34-117			
2-Fluorophenol (S)	%.						47	47	10-118			
Nitrobenzene-d5 (S)	%.						84	82	33-120			
Phenol-d6 (S)	%.						45	45	15-134			
Terphenyl-d14 (S)	%.						92	97	24-133			

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Page 22 of 30

GE_SG001335

QUALITY CONTROL DATA

Project: GE SAN GERMAN
Pace Project No.: 2051688

QC Batch: 76585 Analysis Method: SW-846 7.3.4.2
QC Batch Method: SW-846 7.3.4.2 Analysis Description: 734S Reactive Sulfide
Associated Lab Samples: 2051688001

METHOD BLANK: 323467 Matrix: Solid
Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide, Reactive	mg/kg	ND	50.0	03/16/17 15:20	

LABORATORY CONTROL SAMPLE: 323468

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Reactive	mg/kg	500	441	88	1-110	

MATRIX SPIKE SAMPLE: 323470

Parameter	Units	2051662001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Reactive	mg/kg	ND	500	441	84	1-110	

SAMPLE DUPLICATE: 323469

Parameter	Units	2051662001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Reactive	mg/kg	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Date: 03/23/2017 01:18 PM

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Page 23 of 30

GE_SG001336

QUALITY CONTROL DATA

Project: GE SAN GERMAN
Pace Project No.: 2051688

QC Batch: 76886	Analysis Method: EPA 9045
QC Batch Method: EPA 9045	Analysis Description: 9045 pH
Associated Lab Samples: 2051688001	

LABORATORY CONTROL SAMPLE: 324776

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	6	6.0	100	97-103	

SAMPLE DUPLICATE: 324777

Parameter	Units	2051688001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.0	8.2	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: GE SAN GERMAN
Pace Project No.: 2051688

QC Batch: 76586 Analysis Method: SW-846 7.3.3.2
QC Batch Method: SW-846 7.3.3.2 Analysis Description: 733C Reactive Cyanide
Associated Lab Samples: 2051688001

METHOD BLANK: 323471 Matrix: Solid
Associated Lab Samples: 2051688001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide, Reactive	mg/kg	ND	25.0	03/16/17 16:33	

LABORATORY CONTROL SAMPLE: 323472

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide, Reactive	mg/kg	100	ND	5	1-110	

MATRIX SPIKE SAMPLE: 323474

Parameter	Units	2051662001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide, Reactive	mg/kg	ND	100	ND	6	1-110	

SAMPLE DUPLICATE: 323473

Parameter	Units	2051662001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide, Reactive	mg/kg	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Page 25 of 30

GE_SG001338

QUALIFIERS

Project: GE SAN GERMAN
Pace Project No.: 2051688

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The Nelac Institute

LABORATORIES

PASI-N Pace Analytical Services - New Orleans

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GE SAN GERMAN
Pace Project No.: 2051688

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2051688001	GESG-SLD	EPA 3010	76787	EPA 6010	76830
2051688001	GESG-SLD	EPA 7470	76788	EPA 7470	76833
2051688001	GESG-SLD	EPA 3535	76778	EPA 8270	76815
2051688001	GESG-SLD	EPA 8260	76866		
2051688001	GESG-SLD	SW-846 7.1.2	76907		
2051688001	GESG-SLD	SW-846 7.3.4.2	76585	SW-846 7.3.4.2	76632
2051688001	GESG-SLD	EPA 9045	76886		
2051688001	GESG-SLD	SW-846 7.3.3.2	76586	SW-846 7.3.3.2	76634

REPORT OF LABORATORY ANALYSIS

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Page 27 of 30

GE_SG001340

Company: ARCADIS CARIBE		Report To: ABNER HERNANDEZ	Attention:	2015210	
Address: CITY VIEW PLAZA STE 401		Copy To: CARLOS R. CORDERO	Company Name:	REGULATORY AGENCY	
GUAYHABO P.R.			Address:	<input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER _____	
Email To: abner.hernandez@ARCADIS.COM		Purchase Order No.:	Pace Quote Reference:	Site Location	SAN GERMAN
Phone: 787-777-4000 Fax: 787-777-4000		Project Name: GE San German	Pace Project Manager: J. REDONDO	STATE: P.R.	
Requested Due Date/TAT:		Project Number: E110	Pace Profile #:	Requested Analysis: Filtered (Y/N)	

[illegible]



Sample Condition Upon Receipt W0# : 2051688

Urb. Jardines de Guaynabo
Calle Marginal Bldg A-10
Guaynabo, PR 00958

PM: JAR1

Due Date: 03/21/17

Project #: CLIENT: 98-ARCADISPR

Courier: ☐ Pace Courier ☐ Hired Courier ☐ Fed X ☐ UPS ☐ DHL ☐ USPS ☒ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals Intact: ☐ Yes ☐ No

Thermometer
Used:

- ☒ Therm Fisher IR 4
☐ Therm Fisher IR 6
☐ Therm Fisher IR 7

Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining
contents: 3-14-17 [Signature]

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	1
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15

If No, was preservative added? ☐ Yes ☐ No
If added record lot no.: HNO3 _____ H2SO4 _____

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____



Sample Condition Upon Receipt

1000 Riverbend Blvd., Suite F
St. Rose, LA 70087

Project #: **20**

Courier: ☐ Pace Courier ☐ Hired Courier ☒ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals Intact: ☒ Yes ☐ No

Thermometer Used: ☐ Therm Fisher IR 5
☐ Therm Fisher IR 6
☒ Therm Fisher IR 7

Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 3/15/17 JMB

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	1
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6
Sufficient Volume:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7 limited volume
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8 402 jars
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13 If No, was preservative added? <input type="checkbox"/> Yes <input type="checkbox"/> No If added record lot no.: HNO3 _____ H2SO4 _____
Headspace in VOA Vials (>8mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

APPENDIX E

Photo Log



APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 1

Description: View of underground diesel pipeline location (white line) as required by the Excavation Center of PR DTOP prior removal activities.

Location: Parking lot west of Bldg T-0755 (start of trajectory at diesel AST)

Photograph taken by:
Carlos Cordero

Date: 2/9/2017



Photograph: 2

Description: View of underground diesel pipeline location (white line) as required by the Excavation Center of PR DTOP prior removal activities.

Location: North of security guard office, west of Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 2/9/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 3

Description: View of underground diesel pipeline location (white line) as required by the Excavation Center of PR DTOP prior removal activities.

Location: South of loading/unloading dock Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 2/9/2017



Photograph: 4

Description: View of underground diesel pipeline location (white line) as required by the Excavation Center of PR DTOP prior removal activities.

Location: South (adjacent) to Bldg. T-0755

Photograph taken by:
Carlos Cordero

Date: 2/9/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 5

Description: View of underground diesel pipeline location (white line) as required by the Excavation Center of PR DTOP prior removal activities.

Location: Southeast of Bldg. T-0755

Photograph taken by:
Carlos Cordero

Date: 2/9/2017



Photograph: 6

Description: View of underground diesel pipeline location (white line) as required by the Excavation Center of PR DTOP prior removal activities.

Location: Southeast side of Bldg. T-0755 towards Bldg. T-0499.

Photograph taken by:
Carlos Cordero

Date: 2/9/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 7

Description: View of underground diesel pipeline location (white line) as required by the Excavation Center of PR DTOP prior removal activities.

Location: Northeast side of Bldg. T-0499 towards Bldg. T-0755 crossing street B.

Photograph taken by:
Carlos Cordero

Date: 2/9/2017



Photograph: 8

Description: View of underground diesel pipeline location (white line) as required by the Excavation Center of PR DTOP prior removal activities.

Location: East of former emergency generator unit at Bldg. T0499 (end of trajectory at EGU day tank).

Photograph taken by:
Carlos Cordero

Date: 2/9/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 9

Description: Removal of top soil to located pipelines.

Location: East of former emergency generator unit at Bldg. T0499 (end of trajectory at EGU day tank)

Photograph taken by:
Carlos Cordero

Date: 2/10/2017



Photograph: 10

Description: Demolition of concrete layer on top of pipelines using pneumatic chipping hammer.

Location: Start of trajectory next to AST at parking lot west of Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 2/15/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 11

Description: Demolition of concrete layer on top of pipelines using pneumatic chipping hammer.

Location: Start of trajectory next to AST at parking lot west of Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 2/16/2017



Photograph: 12

Description: Discovery of pipelines beneath concrete slab.

Location: Start of trajectory next to AST at parking lot west of Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 2/17/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 13

Description: View of PetroFLAG® field screening kit used to screen soil after removal of pipeline.

Location: Start of trajectory next to AST at parking lot west of Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 2/20/2017



Photograph: 14

Description: Removal of impacted soil from bottom of trench/excavation after removal of pipelines.

Location: Start of trajectory next to AST at parking lot west of Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 2/20/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 15

Description: View of underground pipelines after removal of top soil.

Location: South (adjacent) to Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 2/21/2017



Photograph: 16

Description: View of bottom of trench/excavation after removal of underground pipelines.

Location: South (adjacent) to Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 2/21/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 17

Description: View of PetroFLAG® field screening kit used to screen soil after removal of pipeline.

Location: Shed south (adjacent) to Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 2/27/2017



Photograph: 18

Description: View of backhoe used for removal of soil after pipeline removal.

Location: South of loading/unloading dock Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 3/1/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 19

Description: View of pipelines cut into pieces prior to removal.

Location: South of loading/unloading dock Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 3/2/2017



Photograph: 20

Description: Removal of impacted soil using backhoe.

Location: Northeast side of Bldg. T-0499 towards Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 3/3/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 21

Description: View of roll-off container for temporary storage of impacted soil removed from excavation/trench.

Location: South of loading/unloading dock Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 3/6/2017



Photograph: 22

Description: Beginning removal activities. Note signs and cones.

Location: Street B between Bldg. T-0755 and Bldg. T-0499.

Photograph taken by:
Carlos Cordero

Date: 3/7/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 23

Description: Demolition of concrete layer on top of pipelines using pneumatic chipping hammer.

Location: Street B crossing

Photograph taken by:
Carlos Cordero

Date: 3/7/2017



Photograph: 24

Description: Discovery of pipelines after concrete slab removal

Location: Street B crossing

Photograph taken by:
Carlos Cordero

Date: 3/7/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 25

Description: Removal of impacted soil with backhoe after removal of pipelines

Location: Street B crossing

Photograph taken by:
Carlos Cordero

Date: 3/7/2017



Photograph: 26

Description: Backfilled trench/excavation after soil sample result showed TPH-DRO concentration <100 mg/kg.

Location: South of loading/unloading dock Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 3/27/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 27

Description: Backfilled trench/excavation after soil sample result showed TPH-DRO concentration <100 mg/kg.

Location: Southeast (adjacent) to Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 3/27/2017



Photograph: 28

Description: Backfilled trench/excavation after soil sample result showed TPH-DRO concentration <100 mg/kg.

Location: Start of trajectory next to former AST at parking lot west of Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 3/27/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 29

Description: Backfilled trench/excavation after soil sample result showed TPH-DRO concentration <100 mg/kg.

Location: Southwest
(adjacent) to Bldg. T-0755

Photograph taken by:
Carlos Cordero

Date: 3/27/2017



Photograph: 30

Description: New concrete slab after trench/excavation soil sample result showed TPH-DRO concentration <100 mg/kg.

Location: Street B crossing

Photograph taken by:
Carlos Cordero

Date: 3/28/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 31

Description: New concrete slab after trench/excavation soil sample result showed TPH-DRO concentration <100 mg/kg.

Location: Southwest (adjacent) to Bldg. T-0755

Photograph taken by:
Carlos Cordero

Date: 3/28/2017



Photograph: 32

Description: New concrete slab after trench/excavation soil sample result showed TPH-DRO concentration <100 mg/kg.

Location: North of security guard office, west of Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 3/28/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 33

Description: New concrete slab after trench/excavation soil sample result showed TPH-DRO concentration <100 mg/kg.

Location: Start of trajectory next to former AST at parking lot west of Bldg. T-0755.

Photograph taken by:
Carlos Cordero

Date: 3/28/2017



Photograph: 34

Description: View of pieces of pipelines after removal

Location: South of loading/unloading dock Bldg. T-0755.

Photograph taken by:
Abner Hernández

Date: 2/22/2017

APPENDIX E - PHOTOGRAPH LOG

GE San Germán - Diesel Underground Pipeline Removal
El Retiro Industrial Park Street B
San Germán, PR



Photograph: 35

Description: View of Borinquen Metals storage container where removed metal pipelines were sent for recycling.

Location: South of loading/unloading dock Bldg. T-0755.

Photograph taken by:
Abner Hernández

Date: 2/22/2017

ATTACHMENT A

Copy of Street Cutting Permit



GE_SG001363



Hon. Isidro Negrón Izarry
Alcalde

Estado Libre Asociado de Puerto Rico
Municipio Autónomo de San Germán
Departamento de Obras Públicas



PERMISO

Por la presente se autoriza al Sr. (a) Arcadis Caribe PSC-Environment de corte /X/ (calle) / / (acera) / / (sardinés) en Calle B (final) Parque Industrial El Retiro Bo. Retiro después de una fianza de \$ 500.00 a pagarse en la Tesorería municipal de San Germán.

Este corte o rotura debe ser reparado con un mínimo de 4" de cemento e inspeccionado por un supervisor de Obras Públicas Municipal. La calle, acera o camino debe quedar en perfectas condiciones. Esta reparación debe hacerla inmediatamente después de hacer la rotura, ya que la Administración Municipal no se hace responsable de cualquier problema o accidente que pueda surgir. Rotular el área del corte ya que es su responsabilidad y tomar las precauciones necesarias. No se podrá afectar el libre paso de vehículos y personas.

La fianza será devuelta después de inspeccionado y aprobado dicho trabajo. De no arreglarse de acuerdo a las exigencias de este permiso, se retendrá la fianza para que el Municipio proceda al arreglo pertinente.

26 de enero de 2017
Fecha


Ing. Damián A. Morales
Director

cel. 939/644/5823 – Sr. Abner Hernández

P.O. Box 85 San Germán, P.R. 00683

ATTACHMENT B

Certification of Procedure for Excavation and/or Demolition Notification





ESTADO LIBRE ASOCIADO DE
PUERTO RICO
Departamento de Transportación
y Obras Públicas

NÚMERO DE AVISO:
DEDT-2017-0147

DIRECTORÍA DE EXCAVACIONES, DEMOLICIONES Y TUBERÍAS CENTRO DE COORDINACIÓN DE EXCAVACIONES Y DEMOLICIONES CERTIFICACIÓN DE TRÁMITE DE AVISO DE EXCAVACIÓN Y/O DEMOLICIÓN

EMERGENCIA	<input type="checkbox"/>	FECHA DE PRESENTACIÓN:	AVISO INICIAL	<input checked="" type="checkbox"/>	
EXCAVACIÓN	<input checked="" type="checkbox"/>	31 DE ENERO DE 2017	1RA EXTENSIÓN	<input type="checkbox"/>	
DEMOLICIÓN	<input type="checkbox"/>		2RA EXTENSIÓN	<input type="checkbox"/>	
RESIDENCIAL	<input type="checkbox"/>				

INFORMACIÓN DEL SOLICITANTE:

NOMBRE DE LA ENTIDAD:	ARCADIS CARIBE PSC		
PERSONA CONTACTO:	ABNER HERNANDEZ	TEL / CELULAR:	787-523-8760 / 939-644-5823

DIRECCIÓN DONDE SE REALIZARÁ LA EXCAVACIÓN Y/O DEMOLICIÓN:

PARQUE INDUSTRIAL EL RETIRO, B, B, SAN GERMÁN KM:0 HM:0

INFORMACIÓN DEL SUBCONTRATISTA:

NOMBRE DE LA ENTIDAD:			
PERSONA CONTACTO:		TEL / CELULAR:	/

INFORMACIÓN DE LOS TRABAJOS A REALIZAR:

FECHA DE COMIENZO:	2/8/2017	FECHA DE EXPIRACIÓN:	4/9/2017
HORARIO EN QUE SE REALIZARÁ LA(S) EXCAVACIÓN Y/O DEMOLICIÓN	6:30AM-2:30PM		

MAQUINARIA	<input checked="" type="checkbox"/>	SI	<input type="checkbox"/>	NO	DESCRIPCIÓN MAQUINARIA:	MINI EXCAVADORA
EXPLOSIVOS	<input type="checkbox"/>	SI	<input checked="" type="checkbox"/>	NO	NÚMERO LICENCIA EXPLOSIVOS:	

DESCRIPCIÓN DE LOS TRABAJOS A REALIZAR:

REMOVER TUBERIA SOTERRADA INOPERANTE DE COMBUSTIBLE DIESEL QUE SUPLIA UN GENERADO DE EMERGENCIA

REFERENCIAS:

ANTIGUA CANCHA BAJO TECHO DE LOS ATLETICOS DE SAN GERMÁN (AL ADERECHEA) LUEGO AL LLEGAR A LA FERRETERIA NATIONAL A LA DERECHA NUEVAMENTE

[Firma manuscrita]

FIRMA DEL COORDINADOR QUE AUTORIZÓ EL AVISO



FECHA: 01/31/2017

Advertencia: Esta certificación no constituye un permiso para excavar o demoler dentro de la jurisdicción del Estado Libre Asociado de Puerto Rico. La misma deberá ser mostrada a solicitud de la Policía de Puerto Rico, Policía Municipal, Cuerpo de Bomberos, Oficiales del COT, Inspectores de DTOP y CSP y cualquier funcionario del DTOP que así lo solicite.

SELLO OFICIAL
GE_SG001366

ATTACHMENT C

Soil Samples Certified Laboratory Results



March 17, 2017

Efrain Calderon
BBL Caribe Engineering P.S.C.
48 City View Plaza1, Suite 401
Road 16, Km. 1.2
Guaynabo, PR 00968

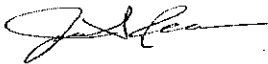
RE: Project: E 118
Pace Project No.: 2051337

Dear Efrain Calderon:

Enclosed are the analytical results for sample(s) received by the laboratory on March 08, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Juan Redondo
juan.redondo@pacelabs.com
(787)720-0319
Project Manager

Enclosures

cc: Sharon Colon
Abner Hernandez
Marianela Mercado-Burgos



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: E 118
Pace Project No.: 2051337

New Orleans Certification IDs

California Env. Lab Accreditation Program Branch:
11277CA

Florida Department of Health (NELAC): E87595

Illinois Environmental Protection Agency: 0025721

Kansas Department of Health and Environment (NELAC):
E-10266

Louisiana Dept. of Environmental Quality (NELAC/LELAP):
02006

Pennsylvania Dept. of Env Protection (NELAC): 68-04202

Texas Commission on Env. Quality (NELAC):
T104704405-09-TX

U.S. Dept. of Agriculture Foreign Soil Import: P330-10-
00119

Commonwealth of Virginia (TNI): 480246

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: E 118
Pace Project No.: 2051337

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2051337001	GESGDPL-1	Solid	03/07/17 07:06	03/08/17 10:32
2051337002	GESGDPL-2	Solid	03/07/17 07:40	03/08/17 10:32
2051337003	GESGDPL-3	Solid	03/07/17 07:54	03/08/17 10:32
2051337004	GESGDPL-4	Solid	03/07/17 08:07	03/08/17 10:32
2051337005	GESGDPL-5	Solid	03/07/17 08:40	03/08/17 10:32
2051337006	GESGDPL-6	Solid	03/07/17 09:00	03/08/17 10:32

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: E 118
Pace Project No.: 2051337

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2051337001	GESGDPL-1	EPA 8015B Modified	JN	4	PASI-N
2051337002	GESGDPL-2	EPA 8015B Modified	JN	4	PASI-N
2051337003	GESGDPL-3	EPA 8015B Modified	JN	4	PASI-N
2051337004	GESGDPL-4	EPA 8015B Modified	JN	4	PASI-N
2051337005	GESGDPL-5	EPA 8015B Modified	JN	4	PASI-N
2051337006	GESGDPL-6	EPA 8015B Modified	JN	4	PASI-N

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: E 118
Pace Project No.: 2051337

Method: EPA 8015B Modified
Description: 8015M DRO/ORO Organics
Client: BBL Caribe / Arcadis PR
Date: March 17, 2017

General Information:

6 samples were analyzed for EPA 8015B Modified. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

QC Batch: 76134

S0: Surrogate recovery outside laboratory control limits.

- GESGDPL-1 (Lab ID: 2051337001)
 - o-Terphenyl (S)
- MS (Lab ID: 321123)
 - o-Terphenyl (S)
- MSD (Lab ID: 321124)
 - o-Terphenyl (S)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 76134

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 2051337001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 321123)
 - Diesel Range Organic (C10-C28)

R1: RPD value was outside control limits.

- MSD (Lab ID: 321124)

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: E 118
Pace Project No.: 2051337

Method: EPA 8015B Modified
Description: 8015M DRO/ORO Organics
Client: BBL Caribe / Arcadis PR
Date: March 17, 2017

QC Batch: 76134

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 2051337001

R1: RPD value was outside control limits.

- Diesel Range Organic (C10-C28)

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: E 118
Pace Project No.: 2051337



Sample: GESGDPL-1		Lab ID: 2051337001		Collected: 03/07/17 07:06		Received: 03/08/17 10:32		Analyzed: 03/09/17 11:28	
Results reported on a "wet-weight" basis									
Parameters		Results	Units	Report Limit	DF	Prepared		CAS No.	Qual
8015M DRO/ORO Organics		Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Diesel Range Organic (C10-C28)		358	mg/kg	9.5	1	03/09/17 11:28 03/10/17 17:29			M1,R1
Oil Range Organics (>C28-C40)		ND	mg/kg	47.6	1	03/09/17 11:28 03/10/17 17:29			
Surrogates									
o-Terphenyl (S)		206	%	16-127	1	03/09/17 11:28 03/10/17 17:29		84-15-1	S0
n-Pentacosane (S)		93	%	16-147	1	03/09/17 11:28 03/10/17 17:29		629-99-2	

Sample: GESGDPL-2		Lab ID: 2051337002		Collected: 03/07/17 07:40		Received: 03/08/17 10:32		Matrix: Solid	
Results reported on a "wet-weight" basis									
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M DRO/ORO Organics		Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546							
Diesel Range Organic (C10-C28)		44.3	mg/kg	9.6	1	03/09/17 11:28	03/10/17 18:54		
Oil Range Organics (>C28-C40)		ND	mg/kg	48.2	1	03/09/17 11:28	03/10/17 18:54		
Surrogates									
o-Terphenyl (S)		62	%	16-127	1	03/09/17 11:28	03/10/17 18:54	84-15-1	
n-Pentacosane (S)		62	%	16-147	1	03/09/17 11:28	03/10/17 18:54	629-99-2	

Sample: GESGDPL-3		Lab ID: 2051337003		Collected: 03/07/17 07:54		Received: 03/08/17 10:32		Matrix: Solid	
Results reported on a "wet-weight" basis									
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M DRO/ORO Organics		Analytical Method: EPA 8015B Modified				Preparation Method: EPA 3546			
Diesel Range Organic (C10-C28)		ND	mg/kg	9.7	1	03/09/17 11:28	03/10/17 19:22		
Oil Range Organics (>C28-C40)		ND	mg/kg	48.6	1	03/09/17 11:28	03/10/17 19:22		
Surrogates									
o-Terphenyl (S)		31	%	16-127	1	03/09/17 11:28	03/10/17 19:22	84-15-1	
n-Pentacosane (S)		52	%	16-147	1	03/09/17 11:28	03/10/17 19:22	629-99-2	

Sample: GESGDPL-4		Lab ID: 2051337004	Collected: 03/07/17 08:07	Received: 03/08/17 10:32	Matrix: Solid			
Results reported on a "wet-weight" basis								
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M DRO/ORO Organics		Analytical Method: EPA 8015B Modified				Preparation Method: EPA 3546		
Diesel Range Organic (C10-C28)	10.8	mg/kg	9.6	1	03/09/17 11:28	03/10/17 19:50		
Oil Range Organics (>C28-C40)	ND	mg/kg	47.8	1	03/09/17 11:28	03/10/17 19:50		
Surrogates								
o-Terphenyl (S)	46	%	16-127	1	03/09/17 11:28	03/10/17 19:50	84-15-1	
n-Pentacosane (S)	47	%	16-147	1	03/09/17 11:28	03/10/17 19:50	629-99-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: E 118
Pace Project No.: 2051337

Sample: GESGDPL-5 Lab ID: 2051337005 Collected: 03/07/17 08:40 Received: 03/08/17 10:32 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M DRO/ORO Organics Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546								
Diesel Range Organic (C10-C28)	ND	mg/kg	9.6	1	03/09/17 11:28	03/10/17 20:18		
Oil Range Organics (>C28-C40)	ND	mg/kg	48.0	1	03/09/17 11:28	03/10/17 20:18		
Surrogates								
o-Terphenyl (S)	47	%.	16-127	1	03/09/17 11:28	03/10/17 20:18	84-15-1	
n-Pentacosane (S)	53	%.	16-147	1	03/09/17 11:28	03/10/17 20:18	629-99-2	

Sample: GESGDPL-6 Lab ID: 2051337006 Collected: 03/07/17 09:00 Received: 03/08/17 10:32 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M DRO/ORO Organics Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546								
Diesel Range Organic (C10-C28)	ND	mg/kg	9.7	1	03/09/17 11:28	03/10/17 20:46		
Oil Range Organics (>C28-C40)	ND	mg/kg	48.7	1	03/09/17 11:28	03/10/17 20:46		
Surrogates								
o-Terphenyl (S)	45	%.	16-127	1	03/09/17 11:28	03/10/17 20:46	84-15-1	
n-Pentacosane (S)	47	%.	16-147	1	03/09/17 11:28	03/10/17 20:46	629-99-2	



REPORT OF LABORATORY ANALYSIS

Date: 03/17/2017 10:14 AM

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GE_SG001375 Page 8 of 14

QUALITY CONTROL DATA

Project: E 118
Pace Project No.: 2051337

QC Batch: 76134 Analysis Method: EPA 8015B Modified
QC Batch Method: EPA 3546 Analysis Description: EPA 8015 ORO
Associated Lab Samples: 2051337001, 2051337002, 2051337003, 2051337004, 2051337005, 2051337006

METHOD BLANK: 321121 Matrix: Solid
Associated Lab Samples: 2051337001, 2051337002, 2051337003, 2051337004, 2051337005, 2051337006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organic (C10-C28)	mg/kg	ND	10.0	03/10/17 16:33	
Oil Range Organics (>C28-C40)	mg/kg	ND	50.0	03/10/17 16:33	
n-Pentacosane (S)	%	60	16-147	03/10/17 16:33	
o-Terphenyl (S)	%	67	16-127	03/10/17 16:33	

LABORATORY CONTROL SAMPLE: 321122

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range Organic (C10-C28)	mg/kg	40	33.7	84	34-125	
n-Pentacosane (S)	%			54	16-147	
o-Terphenyl (S)	%			67	16-127	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 321123 321124

Parameter	Units	2051337001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Diesel Range Organic (C10-C28)	mg/kg	358	39.8	39.8	745	402	973	109	10-163	60	20	M1,R1
n-Pentacosane (S)	%						135	95	16-147			
o-Terphenyl (S)	%						325	194	16-127			S0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: E 118
Pace Project No.: 2051337

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

LABORATORIES

PASI-N Pace Analytical Services - New Orleans

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

S0 Surrogate recovery outside laboratory control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

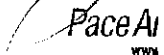
Project: E 118
Pace Project No.: 2051337

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2051337001	GESGDPL-1	EPA 3546	76134	EPA 8015B Modified	76237
2051337002	GESGDPL-2	EPA 3546	76134	EPA 8015B Modified	76237
2051337003	GESGDPL-3	EPA 3546	76134	EPA 8015B Modified	76237
2051337004	GESGDPL-4	EPA 3546	76134	EPA 8015B Modified	76237
2051337005	GESGDPL-5	EPA 3546	76134	EPA 8015B Modified	76237
2051337006	GESGDPL-6	EPA 3546	76134	EPA 8015B Modified	76237

REPORT OF LABORATORY ANALYSIS

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W0#: 2051337



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A
Required Client Information

Company: **ARCADIS Caribe**
Address: **City View Plaza Ste 401**
Guaynabo, PR
Email To: **abner.hernandez@arcadis.com**
Phone: **781-777-4000** Fax:
Requested Due Date/TAT:

Report To: **Abner Hernandez**
Copy To: **Carlos R. Carden**
Purchase Order No.:
Project Name:
Project Number: **E118**

Section C

Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: **J. Redondo**
Pace Profile #: **6764**

Page:

of

2074710

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location: **San Germán**
STATE: **PR**

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	Matrix Codes (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓	Y/N ↓																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		</
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ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Carlos R. Carden / ARCADIS	03/07/17	919	De la Cruz	03/07/17	9:21AM				
	X I think	03/08/17	10:32AM	De la Cruz	03/08/17	10:32	40	Y	N	Y
	Fed Ex	3/9/17	0900	De la Cruz	3/9/17	0900	4.4	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed
(MM/DD/YY):

03/07/17

Temp in °C

Received on
(Y/N)

Isolator
Sealed
(Y/N)

Samples Intact
(Y/N)

GESG0013379



Sample Condition Upon Receipt

WO#: 2051337

Urb. Jardines de Guaynabo
Calle Marginal Bldg A-10
Guaynabo, PR 00966

PM: JAR1

Due Date: 03/18/17

Project #:

CLIENT: 98-ARCADISPR

Courier: ☐ Pace Courier ☐ Hired Courier ☐ Fed X ☐ UPS ☐ DHL ☐ USPS ☒ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact: ☐ Yes ☐ NoThermometer
Used:

- ☒
- Therm Fisher IR 4
-
- ☐
- Therm Fisher IR 6
-
- ☐
- Therm Fisher IR 7

Type of Ice:

Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and initials of person examining
contents: 3-8-17 JAR

Temp must be measured from Temperature blank when present

Comments:

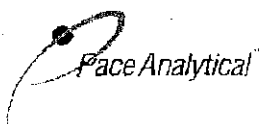
Temperature Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	1
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____



Sample Condition Upon Receipt

1000 Riverbend Blvd., Suite F
St. Rose, LA 70087

Project #: **20**

Courier: ☐ Pace Courier ☐ Hired Courier ☒ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact: ☒ Yes ☐ No

Thermometer
Used:

- ☐ Therm Fisher IR 5
☐ Therm Fisher IR 6
☒ Therm Fisher IR 7

Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining
contents: 3-9-17 JMB

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	1
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8 <u>4 oz jars</u>
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13 If No, was preservative added? <input type="checkbox"/> Yes <input type="checkbox"/> No If added record lot no.: HNO ₃ _____ H ₂ SO ₄ _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

March 15, 2017

Efrain Calderon
BBL Caribe Engineering P.S.C.
48 City View Plaza1, Suite 401
Road 16, Km. 1.2
Guaynabo, PR 00968

RE: Project: E118
Pace Project No.: 2051462

Dear Efrain Calderon:

Enclosed are the analytical results for sample(s) received by the laboratory on March 09, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Juan Redondo
juan.redondo@pacelabs.com
(787)720-0319
Project Manager

Enclosures

cc: Sharon Colon
Abner Hernandez
Marianela Mercado-Burgos



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: E118
Pace Project No.: 2051462

New Orleans Certification IDs

California Env. Lab Accreditation Program Branch:
11277CA

Florida Department of Health (NELAC): E87595

Illinois Environmental Protection Agency: 0025721

Kansas Department of Health and Environment (NELAC):
E-10266

Louisiana Dept. of Environmental Quality (NELAC/LELAP):
02006

Pennsylvania Dept. of Env Protection (NELAC): 68-04202

Texas Commission on Env. Quality (NELAC):

T104704405-09-TX

U.S. Dept. of Agriculture Foreign Soil Import: P330-10-
00119

Commonwealth of Virginia (TNI): 480246

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: E118
Pace Project No.: 2051462

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2051462001	GESGDPL-7	Solid	03/08/17 10:25	03/09/17 11:12

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: E118
Pace Project No.: 2051462

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2051462001	GESGDPL-7	EPA 8015B Modified	SLF	3	PASI-N

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: E118
Pace Project No.: 2051462

Method: EPA 8015B Modified
Description: 8015M DRO/ORO Organics
Client: BBL Caribe / Arcadis PR
Date: March 15, 2017

General Information:

1 sample was analyzed for EPA 8015B Modified. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

QC Batch: 76369

S0: Surrogate recovery outside laboratory control limits.

- MS (Lab ID: 322433)
 - n-Pentacosane (S)
- MSD (Lab ID: 322434)
 - n-Pentacosane (S)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 76369

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 2051631001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 322433)
 - Diesel Range Organic (C10-C28)

R1: RPD value was outside control limits.

- MSD (Lab ID: 322434)
 - Diesel Range Organic (C10-C28)

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: E118
Pace Project No.: 2051462

Method: EPA 8015B Modified
Description: 8015M DRO/ORO Organics
Client: BBL Caribe / Arcadis PR
Date: March 15, 2017

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: E118
Pace Project No.: 2051462

Sample: GESGDPL-7 Lab ID: 2051462001 Collected: 03/08/17 10:25 Received: 03/09/17 11:12 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M DRO/ORO Organics Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546								
Diesel Range Organic (C10-C28)	30.6	mg/kg	10	1	03/14/17 07:20	03/14/17 13:47		
Surrogates								
o-Terphenyl (S)	79	%.	16-127	1	03/14/17 07:20	03/14/17 13:47	84-15-1	
n-Pentacosane (S)	90	%.	16-147	1	03/14/17 07:20	03/14/17 13:47	629-99-2	



REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: E118
Pace Project No.: 2051462

QC Batch: 76369 Analysis Method: EPA 8015B Modified
QC Batch Method: EPA 3546 Analysis Description: EPA 8015 ORO
Associated Lab Samples: 2051462001

METHOD BLANK: 322431 Matrix: Solid
Associated Lab Samples: 2051462001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organic (C10-C28)	mg/kg	ND	10.0	03/14/17 11:01	
n-Pentacosane (S)	%	58	16-147	03/14/17 11:01	
o-Terphenyl (S)	%	71	16-127	03/14/17 11:01	

LABORATORY CONTROL SAMPLE: 322432

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range Organic (C10-C28)	mg/kg	40	34.5	86	34-125	
n-Pentacosane (S)	%			57	16-147	
o-Terphenyl (S)	%			85	16-127	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 322433 322434

Parameter	Units	2051631001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
Diesel Range Organic (C10-C28)	mg/kg	132	45.8	45.4	266	206	293	163	10-163	25	20	M1,R1
n-Pentacosane (S)	%						316	353	16-147			S0
o-Terphenyl (S)	%						112	101	16-127			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: E118
Pace Project No.: 2051462

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The Nelac Institute

LABORATORIES

PASI-N Pace Analytical Services - New Orleans

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1 RPD value was outside control limits.
S0 Surrogate recovery outside laboratory control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: E118
Pace Project No.: 2051462

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2051462001	GESGDPL-7	EPA 3546	76369	EPA 8015B Modified	76413

REPORT OF LABORATORY ANALYSIS

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WO#: 2051462

CHAIN-OF-CUSTODY / Analytical Request Document

A Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Required Client Information:

Company: **ARCADIS CARIBE**
 Address: **City View Plaza Ste 401**
Guaynabo PR
 Email To: **abner.hernandez@arcadis.com**
 Phone: **787-777-4000** Fax:
 Requested Due Date/TAT:

Report To: **Abner Hernandez**
 Copy To: **Carlos R. Cordon**
 Purchase Order No.:
 Project Name:
 Project Number: **E118**

Section C

Invoice Information:

Attention:
 Company Name:
 Address:
 Pace Quote Reference:
 Pace Project Manager: **J. Rendano**
 Pace Profile #: **6264 #3**

Page:

1 of 1

2074711

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location: **San German**
 STATE: **PR**

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓	Y/N ↓	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
					COMPOSITE START		COMPOSITE END/GRAB				Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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1	SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	Drinking Water DW Water WT Waste Water WW Product P Soil/Solid SL Oil OL Wipe WP Air AR Tissue TS Other OT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											</

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Carlos R Cordon / ARCADIS	03/08/17	1332	Bryan Ujeda / PR (de)	08/10/2017	1:35 PM				
	L. Mula	03/09/17	11:12 AM	Paula Juri / PR	03/09/17	11:13 AM	4°C	Y	W	Y
	[Signature]	3-9-17	17:10	Fed Ex	3/10/17	09:50				
	Fed Ex	3/10/17	09:50	[Signature]	3/10/17	09:50				
SAMPLER NAME AND SIGNATURE										
PRINT Name of SAMPLER:		Carlos R. Cordon / Fernando G. Lora								
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY): 03/08/17								
							Temp in °C	Received on Date (Y/N)	Custody Signed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL



Urb. Jardines de Guaynabo
Calle Marginal Bldg A-10
Guaynabo, PR 00869

Sample Condition Upon Receipt

WO# : 2051462

PM: JAR1

Due Date: 03/23/17

CLIENT: 98-ARCADISPR

Project #:

Courier: ☐ Pace Courier ☐ Hired Courier ☐ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact: ☐ Yes ☐ No

Thermometer
Used:

- ☐ Therm Fisher IR 4
☐ Therm Fisher IR 6
☐ Therm Fisher IR 7

Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining
contents: _____

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1
Chain of Custody Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2
Chain of Custody Complete:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6
Sufficient Volume:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7
Correct Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9
Sample Labels match COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10
All containers received within manufacture's precautionary and/or expiration dates.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No	15

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____



Sample Condition Upon Receipt

1000 Riverland Blvd., Suite F
St. Rose, LA 70087

Project #: **20**

Courier: ☐ Pace Courier ☐ Hired Courier ☒ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals Intact: ☒ Yes ☐ No

Thermometer
Used:

- ☐ Therm Fisher IR 5
☐ Therm Fisher IR 6
☒ Therm Fisher IR 7

Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining
contents: 3-10-17 JMB

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	1	
Chain of Custody Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2	
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8	4 oz jar
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10	
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11	
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12	
All containers preservation checked found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13	If No, was preservative added? <input type="checkbox"/> Yes <input type="checkbox"/> No If added record lot no.: HNO3 _____ H2SO4 _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14	
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15	

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

April 04, 2017

Efrain Calderon
BBL Caribe Engineering P.S.C.
48 City View Plaza1, Suite 401
Road 16, Km. 1.2
Guaynabo, PR 00968

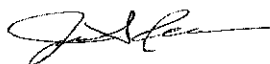
RE: Project: GE SANGERMAN
Pace Project No.: 2052248

Dear Efrain Calderon:

Enclosed are the analytical results for sample(s) received by the laboratory on March 24, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Juan Redondo
juan.redondo@pacelabs.com
(787)720-0319
Project Manager

Enclosures

cc: Sharon Colon
Abner Hernandez
Marianela Mercado-Burgos



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: GE SANGERMAN
Pace Project No.: 2052248

New Orleans Certification IDs

California Env. Lab Accreditation Program Branch:
11277CA

Florida Department of Health (NELAC): E87595

Illinois Environmental Protection Agency: 0025721

Kansas Department of Health and Environment (NELAC):
E-10266

Louisiana Dept. of Environmental Quality (NELAC/LELAP):
02006

Pennsylvania Dept. of Env Protection (NELAC): 68-04202

Texas Commission on Env. Quality (NELAC):
T104704405-09-TX

U.S. Dept. of Agriculture Foreign Soil Import: P330-10-
00119

Commonwealth of Virginia (TNI): 480246

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SAMPLE SUMMARY

Project: GE SANGERMAN

Pace Project No.: 2052248

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2052248001	GESG DPL-1A	Solid	03/23/17 10:37	03/24/17 11:00
2052248002	GESGDPL-8	Solid	03/23/17 11:11	03/24/17 11:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: GE SANGERMAN
Pace Project No.: 2052248

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2052248001	GESG DPL-1A	EPA 8015B Modified	CP	3	PASI-N
2052248002	GESGDPL-8	EPA 8015B Modified	CP	3	PASI-N

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: GE SANGERMAN
Pace Project No.: 2052248

Method: EPA 8015B Modified
Description: 8015M DRO/ORO Organics
Client: BBL Caribe / Arcadis PR
Date: April 04, 2017

General Information:

2 samples were analyzed for EPA 8015B Modified. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 77395

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 2052248001

R1: RPD value was outside control limits.

- MSD (Lab ID: 326885)
- Diesel Range Organic (C10-C28)

Additional Comments:

Analyte Comments:

QC Batch: 77395

- GESG DPL-1A (Lab ID: 2052248001)
 - Diesel Range Organic (C10-C28)
- GESGDPL-B (Lab ID: 2052248002)
 - Diesel Range Organic (C10-C28)

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: GE SANGERMAN

Pace Project No.: 2052248

Method: EPA 8015B Modified

Description: 8015M DRO/ORO Organics

Client: BBL Caribe / Arcadis PR

Date: April 04, 2017

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: GE SANGERMAN
Pace Project No.: 2052248

Sample: GESG DPL-1A Lab ID: 2052248001 Collected: 03/23/17 10:37 Received: 03/24/17 11:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M DRO/ORO Organics Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546								
Diesel Range Organic (C10-C28)	52.1	mg/kg	9.7	1	03/29/17 08:42	04/03/17 20:27		R1
Surrogates								
o-Terphenyl (S)	65	%.	16-127	1	03/29/17 08:42	04/03/17 20:27	84-15-1	
n-Pentacosane (S)	72	%.	16-147	1	03/29/17 08:42	04/03/17 20:27	629-99-2	

Sample: GESGDPL-8 Lab ID: 2052248002 Collected: 03/23/17 11:11 Received: 03/24/17 11:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M DRO/ORO Organics Analytical Method: EPA 8015B Modified Preparation Method: EPA 3546								
Diesel Range Organic (C10-C28)	40.4	mg/kg	9.6	1	03/29/17 08:42	04/03/17 21:59		
Surrogates								
o-Terphenyl (S)	70	%.	16-127	1	03/29/17 08:42	04/03/17 21:59	84-15-1	
n-Pentacosane (S)	74	%.	16-147	1	03/29/17 08:42	04/03/17 21:59	629-99-2	



REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: GE SANGERMAN
Pace Project No.: 2052248

QC Batch: 77395 Analysis Method: EPA 8015B Modified
QC Batch Method: EPA 3546 Analysis Description: EPA 8015 ORO
Associated Lab Samples: 2052248001, 2052248002

METHOD BLANK: 326882 Matrix: Solid
Associated Lab Samples: 2052248001, 2052248002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organic (C10-C28)	mg/kg	ND	10.0	04/03/17 19:26	
n-Pentacosane (S)	%	70	16-147	04/03/17 19:26	
o-Terphenyl (S)	%	67	16-127	04/03/17 19:26	

LABORATORY CONTROL SAMPLE: 326883

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range Organic (C10-C28)	mg/kg	40	28.4	71	34-125	
n-Pentacosane (S)	%			54	16-147	
o-Terphenyl (S)	%			58	16-127	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 326884 326885

Parameter	Units	2052248001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Diesel Range Organic (C10-C28)	mg/kg	52.1	38.4	39.4	67.2	114	39	157	10-163	52	20 R1
n-Pentacosane (S)	%						63	76	16-147		
o-Terphenyl (S)	%						60	94	16-127		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: GE SANGERMAN
Pace Project No.: 2052248

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The Nelac Institute

LABORATORIES

PASI-N Pace Analytical Services - New Orleans

ANALYTE QUALIFIERS

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GE SANGERMAN
Pace Project No.: 2052248

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2052248001	GESG DPL-1A	EPA 3546	77395	EPA 8015B Modified	77688
2052248002	GESGDPL-8	EPA 3546	77395	EPA 8015B Modified	77688

REPORT OF LABORATORY ANALYSIS

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WO#: 2052248

CHAIN-OF-CUSTODY / Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



Section A
Required Client Information:

Company: Arcadis
Address: City View Plaza Ste 401 Cambridge P.R.
Email To: donal.hernandez@arcadis.com
Phone: 783-337-4003 Fax: 783-337-8025
Requested Due Date/TAT:

Section C

Invoice Information:

Attention:
Copy To: Carlos R. Cordero
Company Name:
Address:
Purchase Order No.:
Project Name: WE San German
Project Number: E118

Page: 1 of 1
2075271

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER
Site Location: P.R.
STATE:

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓ Analysis Test ↑	TPH-DRO																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS		
	Andrés Colon / Arcadis	3/23/17	1132	Karla H. V...	3/24/17	11:32am			
	Pace Courthouse	3/24/17	11:00	Dr. Pace	3/24/17	11:00 AM	Y	N	Y
	1/11/17	3-27-17	17:10	Fed Ex	3/28/17	10:30	Y	Y	Y
	Fed Ex	3/28/17	10:30	Dr. Pace	3/28/17	10:30			
SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER: Andrés Colon		DATE Signed (MM/DD/YY): 03/23/17		Temp in °C			
SIGNATURE of SAMPLER: [Signature]						Received on [Signature]			
						Custody Sealed Cooler (Y/N)			
						Samples Intact (Y/N)			

ORIGINAL



Sample Condition Upon Receipt

WO#: 2052248

PM: JAR1

Due Date: 04/07/17

CLIENT: 98-ARCADISPR

Urb. Jardines de Guaynabo
Calle Marginal Bldg A-10
Guaynabo, PR 00989

Project #

Courier: ☐ Pace Courier ☐ Hired Courier ☐ Fed X ☐ UPS ☐ DHL ☐ USPS ☒ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact: ☐ Yes ☐ NoThermometer
Used:

- ☒
- Therm Fisher IR 4
-
- ☐
- Therm Fisher IR 6
-
- ☐
- Therm Fisher IR 7

Type of Ice:

Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining
contents: 3-11-17 JAR

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	1
Chain of Custody Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2
Chain of Custody Complete:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	5
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6
Sufficient Volume:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7
Correct Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10
All containers received within manufacture's precautionary and/or expiration dates.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15

Client Notification/ Resolution:

Person Contacted:

Date/Time:

Comments/ Resolution:



Sample Condition Upon Receipt

1000 Riverbend Blvd., Suite F
St. Rose, LA 70087

Project #: **20**

Courier: ☐ Pace Courier ☐ Hired Courier ☒ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact: ☒ Yes ☐ No

Thermometer
Used:

- ☐ Therm Fisher IR 5
☐ Therm Fisher IR 6
☒ Therm Fisher IR 7

Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining
contents: 3-28-17 HMB

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?"	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	1
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8 <u>4 oz jars</u>
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13 If No, was preservative added? <input type="checkbox"/> Yes <input type="checkbox"/> No If added record lot no.: HNO3 _____ H2SO4 _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____